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THE FUNCTIONS AND DISEASES OF WOMAN.


WITH NUMEROUS ILLUSTRATIONS,

BY

LUCIEN C. WARNER, A.M., M.D.

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MAN, IN HEALTH AND DISEASE.

WITH ILLUSTRATIONS,

BY

I. DE VER WARNER, M.D.,

AND

LUCIEN C. WARNER, A.M., M.D.

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POPULAR TREATISE

ON

MAN,

IN

HEALTH AND DISEASE,

WITH ILLUSTRATIONS.

BY

I. DE VER ~~✓~~ WARNER, M.D.,

AND

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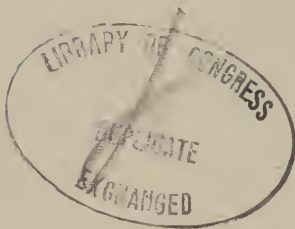
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PREFACE.

IN preparing this work, it has been our aim to present a complete, practical, and reliable treatise on the Special Functions and Diseases of Man. For many years past we have lectured extensively upon Physiology and kindred subjects throughout the various parts of the country, and have thereby had an opportunity of studying closely the physical condition and wants of the people. The experience thus acquired, together with that obtained by a practice in the chief city of our nation, has, we trust, qualified us to speak with some degree of confidence on the subjects upon which we treat. We have no special theory or hobby to advocate; but whatever is valuable in preserving or restoring the health we have recommended without reserve.

In treating upon the delicate topics which we have been compelled to discuss, we have endeav-

ored to do it with clearness and yet with such chastity as not to offend the most fastidious. No information has been given for the purpose of pandering to a corrupt taste ; nor, on the other hand, have any facts been withheld which are essential to the physical or moral well-being of mankind.

I. DE VER WARNER, M.D.

LUCIEN C. WARNER, M.D.

NEW YORK, *August*, 1873.

P. O. Box, 3,008.

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M A N

IN

HEALTH AND DISEASE.

CHAPTER I.

THE RECTUM.

THE intestines, or bowels, are divided into three portions: the small intestines, the large intestines or colon, and the rectum. The food leaving the stomach first enters the small intestines. These are about twenty feet in length, and pass across the body in a zigzag manner. Next, the food passes into the large intestines, or colon. This, commencing in the right groin, passes up the right side, crosses the body just below the liver and stomach, and then passes down the left side to the dish-shaped cavity in the lower part of the body, called the pelvis. Just before entering the pelvis, it bends backward against the spinal column, where it assumes the name of rectum.

The rectum is about eight inches in length, and passes through the pelvic cavity lying behind the bladder and immediately in front of the sacrum or lower portion of the backbone. It is somewhat curved in direction, corresponding with the curvature of the sacrum. The outlet of the rectum is guarded by a circular muscle called the sphincter ani.

The capacity of the rectum is about half a pint, or the natural accumulation of fæcal matter for twenty-four hours ; but the rectum is composed of elastic material like India-rubber, and can be stretched so as to hold a much larger amount. It cannot, however, be thus over-distended without injury ; for it soon becomes weak, like a piece of India-rubber that has been too much stretched, when it fails to soften and expel the contents of the bowels.

CONSTIPATION.

Few men can enjoy perfect health without a daily movement of the bowels. If the fæcal matter is allowed to accumulate in the rectum, the whole course of the alimentary canal is blocked up. This materially interferes with digestion as well as assimilation, and produces headache, nervous-

ness, biliousness, and a general lethargy of the system.

Among the causes which produce constipation, none is more common among men than neglecting to attend regularly to the evacuation of the bowels. If we were as regular in attending to our bowels as we are in partaking of our meals, constipation would be almost unknown. A certain time in the day should be set apart for attending to this matter, and no business or pleasure should ever interfere with the discharge of this duty to nature. Perhaps the best time is soon after breakfast. Persons who are in the habit of observing this rule find that at this time there will be a desire to evacuate the bowels; but if this desire is not heeded, it passes away, perhaps not to return again until the next day. We cannot, therefore, too strongly impress upon the reader the importance of regularity in this matter.

Sedentary habits are also a frequent cause of constipation. Every step in walking, and every bending and twisting motion of the body, tends directly to assist the action of the bowels. For this reason persons suffering from constipation are always benefited by exercise; and many times a change from sedentary to active life is all that is needed to effect a cure.

The use of too concentrated food should also be mentioned as an important cause of constipation. We accordingly find that great benefit is always derived from the free use of Graham bread, oat-meal mush, ripe fruits, fresh figs, etc. A teaspoonful of white unground mustard-seed, taken after each meal, often does much good. A teaspoonful of Indian meal in a little water will often answer the same purpose. A cup of cold water taken into the stomach upon rising in the morning will many times be found beneficial. When these means do not suffice, the occasional use of a Seidlitz powder, or chewing a little piece of rhubarb-root, will be found serviceable. Injections of tepid water, salt and water, or Castile soap and water, may be resorted to when necessary.

Under no circumstances should cathartics be used to cure constipation; for while they empty the bowels, they irritate and weaken their muscular coat, and thus increase the difficulty. In obstinate cases the following pill may be used:

Aloes, -	-	-	-	-	1 scruple.
Extract of Rhubarb,	-	-	-	-	3 scruples.
Extract of Nux Vomica,	-	-	-	-	3 grains.
Sulphate of Iron,	-	-	-	-	15 grains.

Make into thirty-six pills. Take one or two each

night. Never take enough to act as physic, but only sufficient to produce an easy and natural evacuation of the bowels.

Many diseases of the rectum, as well as of the general health, have their origin in long-standing or habitual constipation. Hence we cannot urge too strongly the importance of prompt attention to this affection, which is so often considered and treated as a trifling matter.

PRURITUS ANI, OR ITCHING OF THE ANUS.

This is quite a frequent disease, and one which causes much suffering. It is sometimes called "itching piles," and is often mistaken for hemorrhoids or piles. It may be an accompaniment of piles, though entirely distinct as a disease. Occasionally the disease extends to the scrotum and penis, but more frequently it is confined to the region of the anus. The itching is often so intense that it becomes almost unbearable, and renders life a constant burden.

This disease is usually dependent upon an affection of the skin known as eczema. One of its peculiar characteristics is that it is usually the worst at night, soon after retiring, or when the parts are exposed to fresh air. To relieve the itching and give comfort to the patient, nothing will be found

•

so effective as chloroform ointment, which can be prepared by mixing one drachm of chloroform with one ounce of simple cerate. The ointment should be kept tightly corked, or the chloroform will waste by evaporation. It can be used at any time when needed. The parts should also be washed at night with a tea made of wheat bran and water, to which a little soda is added. After using the tea, then apply to the parts Goulard's cerate, an ointment which can be obtained at any drug store.

In obstinate cases, where the skin becomes much thickened, the parts affected may be washed in a strong solution of soda-water, after which apply the "yellow wash" which is made by dissolving fifteen grains of corrosive sublimate in half a pint of lime-water. We have often found the tar ointment made after the following formula to be very serviceable in the treatment of this disease :

Glycerine,	-	-	-	-	2 ounces.
Starch,	-	-	-	-	2 drachms.
Oil of Tar,	-	-	-	-	1 drachm.

Dissolve the starch in the glycerine, and then mix with heat. Apply once or twice each day.

If the above means fail, as they rarely will, the patient should take for three or four months, in connection with the local remedies, Fowler's solu-

tion of arsenic. Take from eight to fifteen drops three times each day after eating. It is usually best to commence with eight drops and gradually increase the dose to fifteen drops; then skip a few days, and commence again with eight drops. The bowels should be kept loose during the treatment, and the medicine should be continued at least a month after every trace of the disease has disappeared.

HEMORRHOIDS, OR PILES.

The disease known as hemorrhoids, or piles, is one of the most frequent affections of the bowels. It consists of one or more small round tumors, usually of a red or purple color, situated just without or just within the orifice of the lower bowel: hence the distinction of external and internal piles.

The lower portion of the rectum is freely supplied with arteries and veins. These veins, unlike those in other parts of the body, contain no valves; hence anything which presses upon them so as to interfere with the free flow of the blood, will stretch their walls, and produce bunches or knots similar to those which often occur in varicose veins of the lower limbs. These knotted veins produce the bunches of the lower rectum which constitute piles.

The most frequent cause of piles is without doubt constipation of the bowels. The hardened fæcal matter which is allowed to accumulate in the rectum puts it upon the stretch, and not only weakens its walls, but impedes the circulation of the blood, producing bunches in the veins of the rectum. When the bowels are evacuated, these bunches are forced down, where they become irritated, inflamed, and perhaps ulcerated, producing the aggravated symptoms which so frequently attend hemorrhoids.

A chronic diarrhœa, general debility, riding upon horseback, or wearing clothing which fits so closely as to produce chafing, will in many instances produce piles.

A want of proper cleanliness after an evacuation of the bowels is a not infrequent cause of external piles. If fæcal matter is allowed to remain in the hairs that surround the anus, it becomes a source of irritation to the rectum. Persons who are predisposed to piles should use great care in cleansing the external parts after each evacuation. In no case should coarse paper or any harsh substance be employed, but fine, soft paper should be used ; or, what is better still, bathe the parts with a sponge wet in a solution of alum or tannin dissolved in water.

TREATMENT OF EXTERNAL PILES.

This is usually very simple and effective. When they are highly inflamed, perfect rest must be maintained, and flaxseed, or some other mild poultice, applied to the parts until the inflammation subsides. If the bunches maturate, it is not an unfavorable symptom, for it often leads to a radical cure. Sometimes, in the first stage of the inflammation, powdered ice placed in a bladder or bag of oil-silk and applied to the bunches will give great relief.

These tumors often become very sensitive, and have a tendency to bleed from slight causes. This is often produced by the constant chafing of the tumors in walking, and by the irritation from the passage of hard fæcal matter. Great benefit may be obtained in such cases by throwing a stream of cold water with an ordinary injecting syringe upon the inflamed bunches, and then applying the following ointment night and morning:

Simple Cerate,	-	-	-	1 ounce.
Persulphate of Iron,	-	-	-	1 drachm.
Oil of Cade,	-	-	-	$\frac{1}{2}$ drachm.

We have used this ointment for several years in the treatment of external and some forms of internal piles, and it has proved the most valuable of any

application that we have found. If the bowels are constipated, they should be regulated by the means already detailed in speaking upon that subject.

In some severe cases the tumors must be removed by the ligature, which will require the aid of a surgeon. The operation need not, however, be dreaded, for it is accompanied by no danger and no severe pain when properly performed.

INTERNAL PILES.

These are much more severe than external piles, and also more difficult to treat, owing to the fact that the tumors are situated within the rectum, and are not usually brought into sight, except during the evacuation of the bowels. One of the most unpleasant and alarming symptoms that accompanies internal piles, is the loss of blood; hence they are often known as bleeding piles. These bunches, which have been formed from the varicose veins of the rectum, become ulcerated, and the ulcers eat through the walls of the delicate veins, thus causing a profuse loss of blood.

When the bunches are forced down by the passage of the fæcal matter, it often happens that the sphincter muscle contracts around them, and thus prevents their immediate return to the bowel. The

patient, however, soon learns to crowd these back with the fingers after each movement of the bowels. After a few years the muscle loses a portion of its contractile power, so that the tumors are down much of the time, and are often in a condition to bleed from the slightest cause. As a general thing, blood is lost during a movement of the bowels only, but in old cases the bleeding may occur at other times, and the patient be kept constantly weak and enfeebled from the excessive hemorrhage.

The treatment of this form of piles requires much patience and careful management on the part of the patient. His occupation should be such as not to require him to be too much upon his feet, and all heavy lifting and straining should be carefully avoided. The diet should consist principally of lean fresh meats, light wheat bread, oatmeal, milk, eggs, and weak tea ; but coffee and all other stimulants should be prohibited. The bowels should be made to move each day ; but straining at stool should be avoided as much as possible.

In severe cases, the bowels should be evacuated while in the recumbent position, by the use of a bed-pan. This is an important consideration, and it should always be insisted upon. It involves some inconvenience, but the patient will be more than repaid for his trouble. Cathartics should in all cases

be avoided. If the bowels are very obstinate, a mild pill may be taken, but never to produce a cathartic effect. The constant use of physic is often a cause of piles. Cold-water injections will be found very beneficial, both before and after an evacuation.

There is often a feeling of exhaustion which lasts for hours after an evacuation of the bowels. For this reason it is usually better to have the bowels move at night, just before retiring. Astringent in-

jections may also be used after the bowels have moved; such as a strong solution of alum, tannin, or persulphate of iron.

The ointment which was recommended for external piles may also be used with success in the treatment of internal piles. It must, however, be carried up into the rectum to the seat of the disease. This may be accomplished by the use of an instrument called the pile-pipe, a representation of which is shown in the accompanying plate. This is filled with the ointment, and one end introduced into the rec-



THE PILE-PIPE.

tum, when, by screwing down the plunger, the ointment is forced out through the

small openings in the sides of the point. An ointment composed of equal parts of honey and sulphur will in many cases be found valuable in treating internal piles. It can be introduced with the pile-pipe, as already described.

Among the internal remedies for piles, there is nothing I have found more useful than balsam of copaiba. From fifteen to twenty drops can be taken three times each day, and followed up for a month or even longer. This, combined with the local treatment we have given, will often cure cases that seemed almost hopeless.

When these means fail, as they occasionally will, surgical aid should be employed. The most simple and successful means of removing these tumors is with the ligature. By this operation there is little danger from loss of blood, and a few days' rest is sufficient to effect a permanent cure.

PROLAPSUS OF THE RECTUM.

This is a difficulty which often accompanies piles, and is not unfrequently mistaken for them. It consists in a protrusion or coming down of the lower portion of the bowel. In some severe cases all the rectum and a portion of the colon has been known to fall out of the body, protruding sometimes to

the extent of five or six inches. Although this difficulty usually occurs in connection with piles, it may, and sometimes does exist without any of the symptoms of that disease.

Persons having disease of the bladder or urethra which requires them to strain frequently in the passage of the urine, are very liable to this complaint. Relaxation or paralysis of the sphincter muscle which surrounds the anus, also frequently induces a protrusion of the bowel. The difficulty is much more common in children than in adults.

Prolapsus of the rectum is favored by the position ordinarily assumed for a movement of the bowels. Therefore, in treating this difficulty, the first consideration should be to evacuate the bowels in the recumbent position, by the use of the bed-pan. With children, it will frequently answer the purpose just as well, and will be found more convenient, to have them evacuate the bowels while standing.

When prolapsus is caused by paralysis of the sphincter muscle, the use of electricity will in most cases effect a cure. In some severe cases astringent injections may be required, but the other means we have recommended will usually be all that is necessary.

This is not a difficulty which is usually accompanied with much pain, and is easily distinguished

from piles by the absence of bleeding and of any tumors.

FISTULA IN ANO.

Abscesses are liable to occur near the anus as the result of inflamed external piles, an accidental injury, or from general debility and an impoverished condition of the blood. When such abscesses do occur, they are liable to burrow deep into the tissues which surround the anus, forming an unhealthy sore, and refusing to heal. There is no part of the body where Nature has so poor a chance to carry on her repairs as in the vicinity of the anus. The wound is frequently torn open by the contractions of the sphincter muscle, as well as stretched by the daily evacuation of the bowels. This process may go on until an opening is formed into the rectum, an inch or an inch and a half above its outlet. This constitutes the disease known as fistula in ano. There is, so to speak, a double outlet of the bowels, —one through the sphincter muscle, and one through the artificial opening made by the ulcer.

It may be laid down as a rule, that abscesses which occur in the vicinity of the anus result in fistula. Sometimes the opening is external, but does not extend into the bowel, when it is known as blind external piles. Again, it may open into the bowel,

and not externally, when it is called blind internal piles ; but in the great majority of cases it has both an external and internal opening, and is called complete fistula.

We call attention to this disease, not so much for the purpose of describing the treatment as of explaining in what the difficulty really consists ; for many persons suffer from fistula for years, supposing that it is simply a common sore situated near the anus. The best treatment consists in a surgical operation which divides the tissue between the two openings and allows the sore to heal by granulations. It is an operation entirely safe in the hands of a good surgeon, and is attended with but little pain. The caustic injections and irritating salves which some recommend are entirely worthless, besides being more painful than an operation.

FISSURE, OR IRRITABLE ULCER.

This is an unhealthy sore which occurs just at the outlet of the rectum, upon the mucous membrane which lines the bowel. Perhaps there is no difficulty seemingly so simple, which is capable of producing so large an amount of suffering. The fissure might be likened to the unhealthy cold-sores or cracks which sometimes come upon the lips. A hearty

laugh, the act of sneezing, or the taking of ordinary food tends to tear the sore open, and thus thwart all the efforts of nature to heal it. So with the fissure or crack of the anus: the daily movement of the bowels and the contraction of the sphincter muscle after defecation keeps it constantly torn open, so that, if nature is unaided, it may remain for years, or even during life.

The most prominent symptom which attends this difficulty is severe pain soon after the evacuation of the bowels. In the act itself the pain is not necessarily severe, but afterward the pain becomes intense, and may continue from a few minutes to several hours. The pain is usually described as a dull, gnawing, exceedingly distressing sensation, just within the orifice of the anus. This pain is often so great that the act of defecation is deferred as long as possible, sometimes even a week or ten days. This only increases the difficulty; for when the bowels are unloaded, the parts are stretched and torn, so that the disease is greatly aggravated.

The most common cause of this difficulty is obstinate constipation. The rectum becomes packed with hardened fæces; and while it is being expelled, the membrane is torn and a fissure produced.

It is rare that we have so safe and sure a cure for any disease as for fissure or irritable ulcer. Medi-

cines can be of no use in curing this difficulty. A simple surgical operation, which consists in cutting a few muscular fibres at the bottom of the fissure, is all that is necessary. In this manner we prevent the muscular contraction for a few days, until the sore has healed.

More recently the same result is obtained by stretching the muscle with sufficient force to cause it to become paralyzed for a few days, while the sore is healing. Either operation requires the aid of an intelligent surgeon. We have known patients who had suffered many years with this difficulty, supposing it to be piles, to be entirely cured in two weeks by the treatment we have prescribed. There is often a false feeling of delicacy among men about speaking to a physician of the diseases of the rectum and anus, so that many times people suffer for years from simple affections which a few days' intelligent treatment might remove.

CHAPTER II.

THE URINARY ORGANS.

THE source of the urinary organs are the two kidneys. These are located much higher up in the body than is generally supposed, the right kidney being situated behind and a little below the liver, and the left kidney behind and a little below the stomach. This brings them at about the level of the short or floating ribs.

STRUCTURE AND USES OF THE KIDNEYS.

The kidneys weigh from four to six ounces. They are freely supplied with blood by means of two arteries which pass to them from the main artery of the body. These arteries are so large that all the blood of the body passes through the kidneys in the course of from forty to sixty minutes. The object of this large supply of blood is not simply to nourish the kidneys, as might at first be supposed, but it is that the blood of the body may be filtered or strained through the kidneys.

The peculiar structure of the kidneys is such that

all the worn-out material and useless substance which the blood contains is removed in passing through them. Our bodies are constantly undergoing a process of decay. We are subject to more or less wear and tear. Every movement of the limbs, every action of the lungs, every beating of the heart, every thought of the brain, is attended with destruction of the tissues of the body. This loss is repaired from the food we take into our stomachs and the air we take into our lungs. But this worn-out material, this *débris*—the ashes, so to speak, of the human body—must have some channel of escape, and this it finds through the kidneys.

It will thus be seen that the blood serves a double purpose: it not only carries nourishment and life to every part of the body to keep up the repairs, but it takes up the rubbish, the used-up material, and casts it off from the body. Forty-eight per cent. of this worn-out material is expelled from the lungs and skin, while the remaining fifty-two per cent. is filtered from the blood by the kidneys.

The kidneys also assist in removing from the blood any foreign substance which may be taken into the system, either accidentally or as a medicine. Turpentine or copaiba, if taken into the stomach, very soon finds its way through the blood

into the urine, as all who have taken these substances know from the peculiar odor which they impart.

Thus it will be seen that the kidneys act as a safety-valve for the body, removing all those substances not needed for repairs, and which might otherwise endanger the life or health. In this manner, superfluous food that has been forced upon the system to satisfy a morbid appetite, or to please a perverted taste, is removed from the body, and prevented from doing serious mischief.

COMPOSITION OF THE URINE.

The usual composition of the urine is shown in the following table :

Water, -	-	-	-	-	-	-	938
Urea, -	-	-	-	-	-	-	30
Phosphates, -	-	-	-	-	-	-	13
Chloride of Sodium (common salt), -	-	-	-	-	-	-	8
Sulphates of Soda and Potash, -	-	-	-	-	-	-	7
Other Salts, -	-	-	-	-	-	-	4

The object of the water, which forms the principal bulk of the urine, is to hold the other ingredients in solution. Urea, the substance next in quantity, is derived principally from the broken-

down muscular tissue of the body; phosphates come from the brain, nerves, and bones. The other articles come partly from the excess of these substances in the food, and partly from the destruction of the various tissues of the body.

AMOUNT AND COLOR OF THE URINE.

The average amount of urine passed by an ordinary man in twenty-four hours is a little more than two pints. This, however, is subject to great variation. The kind of food taken, the state of the atmosphere, and the amount of exercise, all have their influence upon the quantity and condition of the urine passed. The amount of salts or solid ingredients does not, however, vary as much as the amount of water.

Many men suppose they have the "kidney complaint," and give themselves unnecessary alarm, because the urine is highly colored one day and as clear as water the next. This may all be, and yet the person remain perfectly healthy. Suppose, for instance, that a man takes a ride on a very cold day: the body becomes chilled, perspiration is arrested, and almost no moisture passes off through the skin. But he takes his usual amount of fluid, besides eating freely of juicy fruits. The result is that the kidneys must

do the work of the skin, and, instead of two pints of urine, there may be five or six pints. But this six pints of fluid contains but very little more solid matter than the two pints voided the day before ; consequently the urine will be pale and almost colorless.

Suppose, on the other hand, it is a hot July day, and the person takes vigorous exercise, so as to sweat profusely. The skin now removes nearly all the fluid from the body. The kidneys therefore have but little water to remove from the blood, but about the same amount of salts; accordingly, the urine is strong and high-colored. It does not follow, however, that the man is diseased or has the "kidney complaint."

You need not be alarmed, then, if the urine sometimes contains a sediment. It does not necessarily indicate that the kidneys are at fault, but rather that they are hard at work to rid the blood of something that might do you harm, were it not thus expelled from the body. Men sometimes become morbid in regard to these difficulties, and watch with anxious care each change in the color or appearance of the urine, imagining that they discern symptoms of disease which is speedily to work their ruin. The urine can no more always be alike, than can the outlet of a drain or sewer give off the same refuse every day ; and the sooner men understand this fact, the

sooner they can rid their minds of these imaginary troubles, which often become the bane of their lives.

DISEASE OF THE KIDNEYS.

Real organic disease of the kidneys is far from being as common as is generally supposed. Nearly nine-tenths of the cases who consult us, supposing that they have disease of the kidneys, are entirely free from any such difficulty. Pain in the back or across the loins, and difficulty in the passage of the urine, are quite apt to be attributed to disease of the kidneys ; but in the majority of instances these symptoms proceed from some other organs of the body.

The urine is a poisonous substance, and if not removed from the blood, it will produce death in from forty-eight to sixty hours. For this reason, inflammation of the kidneys, or any disease which arrests their functions, is attended with great danger. If but one kidney is inflamed at a time, then the other can remove the poison from the blood ; but when both are affected at once, there is no organ left to do their work, and the system rapidly becomes poisoned by the urine retained in the blood.

Many of the derangements of the kidneys arise from causes which affect the general system. If the

body for instance is laboring under the effect of miasmatic fever, the blood is loaded with poison; and the kidneys, endeavoring to eliminate it, become overworked and diseased. This is also true of inflammation of important organs of the body, as of the liver, heart, or lungs.

BRIGHT'S DISEASE.

he most frequent and important affection to which the kidneys are liable is known as Bright's Disease. It consists in a peculiar degeneration of the structure of the kidneys, by which they become changed gradually to a fatty or waxy substance. This seriously interferes with their functions, so that more or less of the urea, or poisonous part of the urine, is left in the blood, while the most important and nutritious element of the blood,—albumen,—is removed with the urine, and thus lost to the system.

This disease comes on gradually, so that it sometimes exists for weeks or months before it is suspected. One of the first symptoms by which it may be detected is the presence of albumen in the urine. The amount of the urine is often scanty, but otherwise there is nothing in its appearance to lead to the suspicion of Bright's Disease. To detect the albumen, you have only to add a few drops of nitric acid

to a phial of urine ; when, if albumen is present, it will be coagulated, so as to give the urine a cloudy or milky appearance. The microscope is also very serviceable in detecting Bright's Disease.

General emaciation and debility are likely to follow soon after the appearance of the albumen in the urine. As the disease advances it is generally accompanied by dropsy of the limbs, and sometimes of the whole body. There is also a peculiar pallor of countenance which is very noticeable to those familiar with this disease. Digestion is often much interfered with; in fact, all the symptoms are present which usually accompany debility and impoverished blood.

Bright's Disease is sometimes produced by frequent colds and exposure ; but in many cases it is impossible to determine its cause. It is found that those who use spirituous liquors are more liable to Bright's Disease than those who are strictly temperate ; but it is not confined to the intemperate, as many have supposed.

The treatment of Bright's Disease has thus far been very unsatisfactory. Much can be done to lengthen the patient's life and render him more comfortable, but a complete cure is rarely effected. A very few isolated cases have been cured, and this should lead us not to give up in despair, but to do all in our power for the patient's recovery.

The principal treatment must be hygienic. Everything possible must be done to keep up the general health. Moderate exercise should be taken in the open air, and the diet should be nourishing but unstimulating. The kidneys should also, as far as possible, be relieved from work by keeping the bowels loose with Rochelle or Epsom salts, and by keeping the skin active by means of free perspiration. For this latter purpose, hot-air baths or Turkish baths may be taken as frequently as can be borne without causing exhaustion. A sea-voyage often does much good. Tonics of iron and quinine, or iron and Peruvian bark, will also be found valuable in keeping up the powers of digestion. They may be prepared after the following recipe:—

Tincture of Iron,	-	-	-	$\frac{1}{2}$ ounce.
Sulphate of Quinine,	-	-	-	15 grains.
Syrup of Tolu,	-	-	-	8 ounces.

Dose, one teaspoonful, three times each day after eating.

The patient should by no means give up all hope of a cure, for not all cases that have albumen in the urine are Bright's Disease; and often those cases that seem the most unpromising yield to careful and judicious treatment.

STONE IN THE KIDNEYS.

The urine, as we have already seen, contains several solid ingredients. These are usually held in solution by the water, but sometimes certain ingredients are in excess, so that they settle in the urine, producing little bunches, which are called gravel, or stone.

While the stone is forming, it may give rise to no symptoms to indicate its presence; but as soon as it becomes detached, it produces serious trouble. There are two small tubes, called ureters, which pass from the kidneys to the bladder,—a distance of six or seven inches. These carry the urine to the bladder as fast as it is removed from the blood. The upper portion of these tubes is funnel-shaped, and it is here, at the union of the tube with the kidney, that stone is liable to form. After a time it becomes detached from the side of the tube where it has formed, and the urine, collecting behind it, forces it down through the tube into the bladder. There is probably no pain more severe than that caused by the passage of the stone from the kidneys to the bladder. The instant it reaches the bladder, relief is obtained. During its passage it is often found necessary to administer chloroform, or large doses of

morphine, in order to alleviate the intensity of the suffering.

The cure of stone consists in restoring the urine to its normal condition. The urine should be carefully tested. If found strongly alkaline, then acid should be taken to neutralize it; if acid, then alkalis should be administered. Frequently some ingredient of the urine will be found in excess, and this will need to be corrected by appropriate remedies. Unless the precaution to examine the urine is observed, the remedies prescribed may only add to the difficulty.

THE URETERS.

The ureters, as we have seen, are for the purpose of carrying the urine from the kidneys to the bladder. They do not pass directly through the walls of the bladder, but have a valvular opening, so that while there is a passage from the ureters into the bladder, there is no passage in the opposite direction. This prevents the urine from running back into the tubes after it has once entered the bladder.

THE BLADDER.

The bladder is the receptacle or reservoir of the urine. It is situated in the cavity of the pelvis,

directly in front of the rectum. Its natural capacity is about a pint, or a pint and a half; but, like the rectum, it is composed of elastic material, and can be stretched so as to hold two or three times that amount. It cannot, however, be thus over-distended without great risk of inducing disease. The bladder is lined by a thin, delicate skin, called mucous membrane. This membrane is covered in health by a slimy secretion, called mucus, which forms a kind of varnish, protecting the bladder from the irritating effects of the urine. If the bladder becomes greatly stretched, it cracks the varnish, so to speak, and allows the poisonous urine to come directly in contact with the mucous membrane, causing irritation, and sometimes inflammation of the bladder.

ATTENTION TO THE CALLS OF NATURE.

You see, therefore, the importance of responding promptly to the calls of nature. But how is it with the majority of men? A clerk is busy behind the counter, waiting on customers: is he going to be bothered three or four times a day to leave his work for such a little matter as this? Or a young man is attending an evening party: in the midst of the entertainment he feels the demands of nature

pressing upon him; but he could not think of excusing himself for a few minutes, for some young lady might suspect what he had gone out for. So he waits until three or four o'clock in the morning, and then goes out, and has to strain until it seems as though his whole insides would give way before he can start a drop of water. The outcome of this night's negligence is disease of the bladder, or "kidney complaint," as he calls it, which may last him six months or a year before he is cured. Nature is an exacting mistress in her demands, and these little requirements of hers, if not attended to, may produce serious results.

POOR WATER-CLOSETS.

I have often been amazed to see the insufficient and incommodious water-closets too often provided at private houses, hotels, and in connection with our public schools and colleges. Often they are at so great a distance as to render it inconvenient to visit them; and so void of cleanliness, that persons of refinement shrink from approaching them until it becomes a positive necessity. A clean and commodious water-closet should be attached to every public or private building; and no man who lays any claim to decency—say nothing of refinement—will defile it with obscene verses or uncleanly habits.

INFLAMMATION OF THE BLADDER.

Inflammation of the bladder may be produced by direct injuries, by stone in the bladder, or by diseases of the outlet of the bladder, which prevent the free escape of the urine. It is also frequently produced in persons who enjoy perfect health, by mere carelessness in attending to the calls of nature.

When the bladder becomes inflamed, from whatever cause, there is always a desire to pass the urine much more frequently than in health. The inflammation is usually situated near the neck or outlet of the bladder. A table-spoonful of urine will often cause such severe pain and smarting as to compel the immediate emptying of the bladder. Sometimes the urine will be found to contain a little blood and mucus, but often it is perfectly healthy. After the passage of the urine, there is a tendency to strain, as if the bladder had not been fully emptied; an uneasy or smarting sensation is felt in the region of the bladder, and occasionally a few drops of water will pass away without the knowledge of the patient. In some cases the difficulty is felt only during the day; but in others it continues nights as well as days, causing the patient to rise frequently and empty the bladder.

To relieve this irritation of the bladder and constant desire to urinate, there is nothing better than fifteen or twenty drops of balsam of copaiba, taken three times each day. This, in some cases, will be more effective by mixing it with an equal amount of the fluid extract of cubebs. If the case has become chronic, the following tonic of iron and strychnine should also be employed :

Tincture of iron,	-	-	-	I ounce.
Simple Syrup,	-	-	-	- 10 ounces.
Cinnamon Essence,	-	-	-	I drachm.

To this, add 2 grains of strychnine dissolved in half a drachm of acetic acid. Dose, one teaspoonful after each meal. When patients are weak or debilitated, this should be followed up for two or three months.

Fluid should be avoided in the latter part of the day ; but as a general rule, it does no harm for the patient to take as much fluid as the appetite craves. The free use of slippery elm or flaxseed tea is often very serviceable in diluting the urine, and rendering it less irritating to the inflamed bladder.

The bowels must be kept regular, and a generous diet taken ; but rich and highly-seasoned food and all stimulants should be avoided. Bread, oat-meal, fresh meats, eggs, and milk, will be found most valuable.

STONE IN THE BLADDER.

As we have already explained, stones or gravel are liable to form in the kidneys, and pass down the ureters into the bladder. They do not always pass off from the bladder, but may remain and form a nucleus, around which other solid ingredients may collect, thus producing stone in the bladder. Stone will also, occasionally, form in the bladder when there have been no symptoms of stone in the kidneys. The stones which form in the bladder vary in size from an ordinary pea to that of an orange. There may be but a single stone, or there may half a dozen, or even more.

The symptoms which attend stone in the bladder are at first not unlike those of ordinary inflammation. Persons who have attacks of gravel, and occasionally pass these hard lumps with their urine, should be on the lookout for stone in the bladder. Occasionally, this disease may exist for years without the person suspecting it ; but after the stone has attained any considerable size, the bladder is usually much irritated by its presence. There will be a feeling of weight at the neck of the bladder, and mucus in large abundance will be found in the urine. During the passage of the urine, the flow of

the stream is liable to be suddenly interrupted by the stone coming down against the outlet of the bladder.

The only positive proof of stone in the bladder, is the introduction of a steel sound through the water-passage into the bladder, by which the experienced surgeon can touch the stone and recognize its presence.

The treatment at first may be the same as for stone in the kidneys, with the view of dissolving the stone by the use of internal remedies. This means will not, however, succeed, except in a very limited number of cases. When the stone is of any considerable size, it is useless to dally in this manner; but surgical treatment should at once be resorted to. This consists in either crushing the stone into fine particles, by means of certain instruments introduced through the water-passage, or, where this is not practicable, cutting through the perineum into the bladder, and removing the stone entire. This operation, which formerly was considered very formidable and dangerous, has now become one of the most satisfactory operations in surgery, and is rarely accompanied by dangerous results.

ENLARGEMENT OF THE PROSTATE GLAND.

At the outlet of the bladder is situated a large gland, shaped very much like a horse-chestnut, called the prostate gland. It is about one and one-half inches in length by one inch in diameter, and entirely surrounds the urethra, or water-passage. The special functions of this gland we shall explain in a later chapter, when we come to study the seminal organs. At present we shall only call attention to an affection of this gland which is liable to occur in old men.

There are few men, past sixty-five or seventy years of age, who do not have more or less trouble in the passage of their water. This is usually attributed to the "kidney complaint," especially when it is accompanied with weakness in the back. The difficulty is usually caused by the enlargement of a part or the whole of this gland. You can at once see that if this gland becomes increased in size, the water-passage, which runs through it, will be pressed upon, and thus rendered smaller. Occasionally a small tumor, or polypus, forms in the passage, which may seriously obstruct the flow of urine.

Those suffering from disease of prostate gland

will find it necessary to pass the urine more frequently than is usual. The stream is also smaller than natural; it is often difficult to get the urine started, and the whole process is unsatisfactory, and not attended with the usual feeling of relief. As the gland enlarges, and the passage becomes more obstructed, urination becomes impossible, and a catheter must be used. Many old men are obliged to carry a catheter with them constantly, in order to draw off their urine.

Persons with this difficulty should avoid taking cold, as it is almost sure to aggravate the trouble. Many times, attacks of suppression of the urine are brought on by being out in the cold air, or getting the feet damp, so that the surface of the body becomes chilled. Severe labor, horse-back riding, or riding in a jolting wagon, are also liable to aggravate this difficulty.

In treating enlargement of the prostate gland, the body should be dressed warmly, the bowels kept open, the diet should be plain and unstimulating, the exercise moderate, and all excitement and exposure carefully avoided. The remedies commonly employed to act upon the kidneys are useless in this trouble, for the difficulty is to get rid of the urine already formed rather than to increase the amount.

When there is a stoppage of the urine from cold or exposure, relief can usually be obtained by getting the body in a profuse perspiration. This relaxes the fibres which surround the neck of the bladder, and allows the urine to escape. When there is irritation of the neck of the bladder, with a desire to void the urine very frequently, relief can almost always be obtained from the use of the following prescription :

Balsam of Copaiba,	-	-	1 ounce.
Fluid Extract of Cubebs,	-	-	1 “
Balsam of Tolu, -	-	-	$\frac{1}{2}$ “
Sweet Spirits of Nitre,	-	-	4 “

Shake the mixture, and take one teaspoonful three times each day. We have had many patients who have kept this prescription by them constantly, to take whenever their symptoms were aggravated. It can be discontinued as soon as relief is obtained.

One of the peculiarities of this complaint is that the patient may go for two or three months without special inconvenience, and then find the difficulty on him again. The following medicine may sometimes be used with advantage with a view to reduce the size of the gland :

ENLARGEMENT OF THE PROSTATE GLAND. 61

Iodide of Potassium,	-	-	1 ounce.
Simple Syrup,	-	-	1 pint.
Wintergreen Essence,	-	-	$\frac{1}{2}$ ounce.

Dose, one teaspoonful before each meal; to be followed up for several months.

There are many cases which can hope for only temporary relief, and this they will usually be able to obtain by following the directions and using the remedies which we have given.

CHAPTER III.

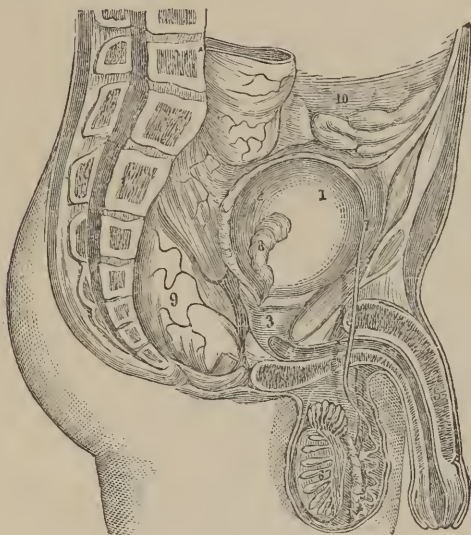
THE REPRODUCTIVE ORGANS.

THE male organs of generation are the source of one of the most important and interesting functions of the body,—the reproduction of the species. They are endowed with a life-giving power, so that through them the human race is preserved from generation to generation. We may therefore expect to find them in close sympathy with the most vital organs, and exerting a powerful influence upon the general health and vigor of the whole body.

THE TESTICLES.

At the source or fountain-head of the generative organs we find the two testicles. These are situated in a sheath or bag called the scrotum, which serves both to support the weight of the testicles and to protect them from injury. They are freely supplied with blood by means of the two spermatic arteries which pass down from the body and form a part of the cord of the testicle. In structure the

testicles are made up of a great number of little tubes called the seminiferous tubes. These are



SECTION OF MALE PELVIS.

1, 2. The Bladder. 3. Prostate Gland. 4. Urethra, or Water-passage.
5. Penis. 6. Testicle. 7. Vas Deferens, or Seed-pipe. 8. Vesicula Seminalis,
or Seed-bag. 9. Rectum. 10. Small Intestines.

well shown in the accompanying plate, which represents the microscopic appearance of the testicle injected with quicksilver. These tubes unite together, and finally empty into the vas deferens or seed-pipe. This passes from the testicle up into the body, and unites with the spermatic artery in forming the cord of the testicle.

The function of the testicle is to manufacture the male fluid, or semen. In describing the kidneys, you will remember we said they *strained* the urine from the blood ; but here we use the word *manufacture*. The reason of this is that the urine already exists in the blood, and the office of the kidney is simply to filter or strain it away. Not so, however, with the testicles. There is no semen in the blood, but it is a new substance manufactured from the blood by the testicles.

The testicles are all the while engaged in manufacturing semen, which, as fast as it is formed, passes into the vas deferens, to be disposed of as we shall presently describe.

DISEASES OF THE TESTICLES.

The most frequent derangements of the testicles are inflammation and atrophy, or wasting away of the testicles. Inflammation may arise from a blow or injury, from mumps, or from some sore or disease affecting the generative organs. The most frequent cause is probably gonorrhœa. The disease may be acute, giving rise to severe pain, or it may be chronic, when the most prominent symptom will be a gradual enlargement of the testicles.

The treatment should consist in the internal use of alterative medicines, in wearing a bag suspended around the body which shall sustain the weight of the testicles, and often in the use of strips of adhesive plaster applied so as to contract the size of the testicle. We will not enter into a minute description of the application of these remedies, for the treatment of so important an organ should in all cases be intrusted to a competent surgeon.

Atrophy, or wasting away of the testicles, is most frequently produced by excessive sexual indulgence, masturbation, or the use of alcohol and tobacco. The wasting is usually very gradual, and is most common in young men, often reducing the testicle to a soft, pulpy structure, less than one-third its natural volume.

The treatment must consist chiefly in removing the exciting cause, and attending to the general health. It is rarely possible to increase the testicle to its normal size, though its functions may be nearly or quite restored.

HYDROCELE.

The scrotum or sheath of the testicle is more liable to disease than the testicle, and it is often difficult to distinguish the one from the other. The

most frequent disease of the scrotum is hydrocele, or what is popularly known as dropsy of the testicle. The walls of the scrotum consist of several distinct membranes or layers, which are very loosely attached to each other. Often, as the result of some disease of the genital organs, or of general debility, fluid accumulates between the membranes, producing a large watery tumor, which entirely fills one or both sides of the scrotum. This is frequently mistaken for enlarged testicle ; but it may usually be distinguished, by feeling the testicle, as a small hard body floating in the midst of the mass of water.

In the treatment of hydrocele it is necessary to open the sack and empty out the fluid ; after which injections of iodine or some other stimulating medicine should be introduced, to cause the walls of the sack to grow together, and thus prevent the disease from returning ; for if the sack is simply opened, without other treatment, it will fill up again in the course of a few days or weeks. The operation is attended with but little danger or inconvenience in the hands of a good surgeon. Persons who do not desire to submit to an operation, will find great relief by supporting the scrotum with a bandage, as already described for enlarged testicle.

THE CORD OF THE TESTICLE.

The cord of the testicle is composed of the spermatic artery and vein, the vas deferens, or seed-pipe, and some connective tissue which binds these together. It serves both to hold up the testicle, and also to form a means of communication between the testicle and the organs of the pelvis and abdomen. The testicles are, in fact, first formed in the abdomen, and descend to the scrotum only a few weeks before the birth of the child. In some instances they do not come down until after birth; while still more rarely one or both testicles remain in the abdomen during life.

The cord of the testicle, in passing through the abdomen, follows an oblique direction. The abdomen, at this point, consists of three distinct layers. The cord passes through the outer layer, then goes along the groin about an inch, and passes through the second layer, and then goes along another inch and passes through the third layer into the belly.

HERNIA, OR RUPTURE.

You thus see that there is a small canal or passage leading from the cavity of the body to the scrotum. This passage is usually so filled by the

cord of the testicle that there is no room for anything to pass by its side. In some persons, however, it is unusually large, when a severe strain or pressure upon the bowels will force a single fold of the bowels down this canal into the scrotum, producing hernia, or rupture.

There are other forms of rupture, but this is the kind which usually occurs in men. It is always a serious trouble, for in the process of digestion the food must pass through every coil of the intestines. If a single place is thus obstructed, it blocks up the whole bowels, giving rise to severe pain and vomiting; and if the obstruction is not relieved, it will cause death in a few hours.

To replace the bowels, when they come down in hernia, the person should lie down flat upon his back, and bring the knees up toward the body, and near together. Then, by pressing the bowel gently and slowly upward, he will usually be able to replace it within the abdomen. To retain the bowel in its place, the patient should be provided with a good truss, and should wear it constantly during the day.

When the hernia comes down and it cannot readily be replaced, a surgeon should be summoned with haste; for a delay of two or three hours will often make the difference with the patient

of life or death. Hernia is much more common than is generally supposed, statistics showing that it affects about one man in every ten.

VARICOCELE.

Sometimes the veins which constitute a part of the cord of the testicle become enlarged, producing varicocele. This is distinguished from hydrocele, which we have already described, by the swelling being in the upper part of the scrotum, and extending up into the groin. A still greater danger is that varicocele may be confounded with hernia; and we would recommend, in all cases where either disease is suspected, that the case should be at once referred to a surgeon; for if the disease should prove to be hernia, serious consequences might result from delay.

The treatment for varicocele is entirely surgical, and usually consists in tying a ligature tightly around the enlarged veins, when they will gradually wither away and the enlargement disappear.

THE SEED-BAGS.

When the vas deferens, or seed-pipe, enters the abdomen, it passes down the back side of the bladder, almost to its outlet, and empties into a little

sack, called the *vesicula seminalis*, which, for the sake of simplicity, we will call the seed-bag. There are two of these sacks, one upon each side of the bladder, and connected with each of the testicles. They are situated just behind the prostate gland, and hold not far from a teaspoonful each.

The outlet of these seed-bags passes directly through the structure of the prostate gland, and opens into the urethra or water-passage, about an inch and a half from the outlet of the bladder. It will thus be seen that up to this point the generative organs and urinary organs are entirely distinct; but from here the water-passage becomes a common outlet for both.

THE PROSTATE GLAND.

The prostate gland, as we have before described, surrounds the neck or outlet of the bladder. It furnishes a secretion known as the prostatic fluid, which is given off freely during sexual excitement. This fluid is nearly transparent, resembling very much the white of an egg. Its object is to dilute the semen, and make it flow more readily along the passage of the urethra.

The prostatic fluid is frequently expelled from the gland when there is no sexual excitement and no

loss of semen. In this case it is often mistaken for semen, and its loss causes great concern to those who do not understand its true character. The situation of the prostate gland around the neck of the bladder is such, that the simple act of straining in the passage of the urine may be sufficient to crowd out a few drops of its secretion, which appears at the outlet of the penis as a transparent mucilaginous fluid. Sexual excitement when there is no emission of semen, nearly always causes a slight secretion of prostatic fluid to escape from the urethra. Those also who suffer from constipation and are obliged to strain severely while at stool, very frequently lose a few drops of this fluid. In this case the discharge of the fluid is aided by the direct pressure of the fæcal matter as it crowds upon the gland in its passage from the rectum.

The loss of prostatic fluid is no sign of seminal weakness or disease of any kind. There is scarcely a man in robust health that by straining hard at stool, may not cause more or less of this secretion to escape from the body. Careful microscopic examination has proved conclusively that it is extremely rare for semen to escape in this manner. And yet this is a symptom which is harped upon more than any other in those books which are advertised so extensively, purporting to enlighten the

erring upon those diseases which have resulted from the so-called "indiscretions of youth." We need hardly state that in most cases these books are written with the express design of alarming and deceiving those who peruse their pages. Enough real evil results from the bad practices of the young, without inventing those which are imaginary; and it is time that the truth in these matters was understood.

We have known men in robust health who have been frightened almost to insanity by these designing and unscrupulous villains. Many men are very sensitive about anything which pertains to their sexual organs; and if they have ever committed an unholy act, they brood over it, and dwell upon it until it is imagined to be the source of untold imaginary disease.

It is by no means uncommon for young men to suppose that their manhood is being lost, and that their generative organs are gradually becoming inactive, by the escape of semen in urine and while at stool. Let us therefore state, and let it be firmly riveted upon the mind of the reader, that disease from this source is exceedingly rare—that it does not occur in one case in a hundred of those who actually suffer from involuntary loss of semen. There are many young men who suffer from seminal emis-

sions, as we shall have occasion to describe hereafter ; but it does not escape with the urine, or while straining at stool. This statement will, we trust, be a comfort to many of our readers who have been unnecessarily alarmed by the false instruction they have heretofore received.

THE SEMEN.

The semen, as it is discharged from the penis, is a compound fluid, made up partly from the secretion of the testicles, partly from the prostatic fluid, and partly from other and less important glands. The secretion of the testicles is, of course, the most important part, the other ingredients serving simply to dilute it and increase its fluidity.

The essential or life-giving part of the semen consists of microscopic germ-cells, called spermatozoa. The peculiarity of these cells is that they each have attached to them a little filament, or tail, which, in recent semen, is always in motion, propelling the cell from place to place. The special object of these cells, and of the moving power which they possess, will be explained in a later part of the book, when we come to treat of the subject of reproduction.

CHAPTER IV.

CHILDHOOD.

IN infancy and childhood the organs of generation exist only in a rudimentary state, and have no functions to perform. They are small in size, and lie, as it were, dormant in the body, awaiting the time when they shall be roused into growth and activity. Not only are these organs dormant, but the feelings which grow out of the relations of the two sexes are also as yet undeveloped. Girls and boys of eight and ten years old meet and play together with a feeling of unconstrained friendship and equality, which, when older, they no longer possess. The boy may now and then show himself "father to the man" by his greater love for rough, out-of-doors sports, and the girl may give evidence of the incipient development of maternal instincts by the hours of pleasure she derives from her doll; but these are, as yet, only tiny rivulets, albeit they indicate the course along which, in after life, the mighty current of their lives will flow.

The absence of sexual feelings and sexual thoughts

is the natural condition of childhood. We believe that most children, who are brought up in well-regulated families, amid pure associations, and with healthful amusements, have very little inclination to dwell upon sexual topics, even by way of speculation. Having no sexual feelings to gratify, their imagination has nothing upon which to feed. The subject is comparatively uninteresting to them, and their curiosity would rarely be excited upon it but for the suggestions of older persons.

PRECOCIOUS SEXUAL DEVELOPMENT.

While sexual indifference is the rule among children, there are, unfortunately, some exceptions. We sometimes find boys, even of tender age, with marked development of the generative organs, accompanied by strong sexual passions. Cases are on record where boys, four and five years old, have possessed all the physical and mental characteristics of puberty. Such extreme cases are, fortunately, very rare; but instances of a partial development of the sexual functions during childhood are very frequent.

This precocity in childhood is thus finely described by Dr. Acton, in his excellent work on "The Reproductive Organs":—

“Slight signs are sufficient to indicate when a boy has this unfortunate tendency. He shows marked preferences. You will see him single out one girl, and evidently derive an unusual pleasure, for a boy, in her society. His penchant does not take the ordinary form of a boy’s good-nature, but little attentions that are generally reserved for a later period, prove that his feeling is different, and sadly premature. He may be apparently healthy, and fond of playing with other boys ; still there are slight but ominous indications of propensities fraught with danger to himself. His play with the girl is different from his play with his brothers. His kindness to her is a little too ardent. He follows her, he does not know why. He fondles her with tenderness painfully suggestive of a vague dawning of passion. No one can find fault with him. He does nothing wrong. Parents and friends are delighted at his gentleness and politeness, and not a little amused at the early flirtation. If they were wise, they would rather feel profound anxiety ; and he would be an unfaithful or unwise medical friend who did not, if an opportunity occurred, warn them that the boy, unsuspecting and innocent as he is, ought to be carefully watched, and removed from every influence that could possibly excite his slumbering tendencies.

“The premature development of the sexual inclination is not alone repugnant to all we associate with the term childhood, but is also fraught with danger to dawning manhood. On the judicious treatment of a case such as has been sketched, it probably depends whether the dangerous propensity is so kept in check as to preserve the boy's health and innocence, or whether one more shattered constitution and wounded conscience is to be added to the victims of sexual precocity and careless training. It ought not to be forgotten that in such cases a quasi-sexual power often accompanies these premature sexual inclinations. Few, perhaps, except medical men, know how early in life a mere infant may experience erection. Frequently it may be noticed that a little child, on being taken out of bed in the morning, cannot make water at once. It would be as well if it were recognized by parents and nurses that this often depends upon a more or less complete erection.”

CAUSES OF SEXUAL PRECOCITY.

Among the causes of precocious sexual development, we will first mention hereditary descent. The mind and passions, as well as the form and features, are transmitted from parent to child. It

is not altogether the result of early training that we see successive generations, in certain families, manifesting such a propensity for certain forms of sin as to defy alike the restraints of law and morality.

But another fact, more pertinent to our present inquiry, is that acquired sensuality is equally as transmissible as that which was itself inherited. If parents give themselves up to the indulgence of sensuality, to the exclusion of higher and nobler pleasures and employments, they must expect that their children will inherit from them the same debasing tendency. Evil habits are, no doubt, more frequently acquired than inherited ; but we believe, in many cases, they are directly transmitted from parent to child. It is in this way only that we can explain many of the cases which we meet of early sexual precocity.

Another prolific cause of premature sexual development is vicious and immoral companions. If a child associates with either men or boys who indulge in vulgar or obscene conversation, or if he reads immoral books, his imagination becomes repeatedly excited, and this in turn acts upon the generative organs, and induces the premature development of the sexual propensities. Many children have passions thus aroused within them which in

after years become their relentless masters, and drag them down to certain destruction.

Anything calculated to induce the flow of blood to the generative organs, tends to excite their premature development. The practice of masturbation, the improper handling of the private parts, and even the punishment of children by slapping the nates, are frequent causes of sexual precocity. This is particularly true of masturbation, but we will only allude to it here, as we shall treat the subject more fully in a later part of the book.

Sometimes there is an irritation or itching of the generative organs, which causes the child to seek relief by rubbing them; and this eventually leads to the practice of playing with the private parts, and perhaps also to masturbation. This irritation may be due to derangement of the bladder, to the presence of worms in the rectum, or, more frequently, to the want of proper cleanliness of the private parts. In the child, the foreskin entirely covers the head of the penis; so that secretions may collect under the foreskin, and thus become a source of irritation and severe annoyance.

IMPORTANT SUGGESTIONS TO PARENTS.

In the rearing of children, the thoughts should be kept as free as possible from all sexual feelings

and desires. To this end, all the causes which we have mentioned as calculated to develop the amorous propensities, should be carefully avoided. The parents must themselves lead temperate and pure lives ; the associates of the children must be carefully selected, that they may not be contaminated by filthy conversation or examples ; the books which they read should be pure and elevating. They should be taught not to expose the body, but in every relation of life to maintain modesty of word and act. More especially should they be instructed to avoid all handling or manipulations of the private parts. Without giving any reason for it, they should early be taught to keep the hands away, which in most cases will be all that is necessary.

When a child is discovered to have a propensity for rubbing or handling the private parts, the presence of some irritation about the penis may be suspected as the exciting cause. The head of the penis should therefore be carefully examined, and if any secretions are found upon it, the foreskin should be drawn entirely back, and the parts carefully washed in tepid water. This should be repeated at least two or three times each week.

In some instances, the foreskin is so long and narrow that it is impossible or very difficult to draw it back. In these cases, the penis is much more likely

to be unnaturally sensitive than where the parts are normal. Such children would be greatly benefited by the operation of circumcision, which consists in cutting off a part of the foreskin so that the remainder draws back, and leaves a portion of the head of the penis uncovered.

We cannot bear too clearly in mind that everything in children which tends to awaken the sexual passions will create in them also a desire for their gratification. Thus are there often sown in early life the seeds of evil, which, if they do not immediately germinate in masturbation with its attending sorrows, will, in after years, bring forth the fruits of licentiousness, with all its degradation, shame, and ruin. This is a fact which is too imperfectly understood by those who have the charge of the rising generation ; and many times the future health and happiness of a child are sacrificed to the ignorance, diffidence, or false modesty of its parents and guardians. No such feelings should ever deter the true parent from acquainting himself with the habits of the children under his care, and, when occasion calls, from using the means necessary to protect them from practices and influences which might work their ruin.

CHAPTER V.

PUBERTY.

PUBERTY is the period of transition from boyhood to manhood. During childhood, as we have seen, the organs of reproduction are small and rudimentary, and the peculiar feelings which characterize the sexes are as yet comparatively dormant. But as the boy approaches manhood, these undeveloped powers are awakened into new growth and activity. Heretofore the principal functions have been the physical growth of the body, and the mental and moral growth of the mind ; but now a new element is introduced by the development of the organs and functions of reproduction.

PHYSICAL CHANGES.

The period of puberty is attended with many marked changes in the appearance of the youth. The beard now appears upon the face, and the growth of hairs upon all parts of the body is greatly stimulated ; the skin becomes coarser, the muscles firmer ; the voice loses its childish, piping qualities,

and changes to a lower and heavier tone ; the prominence known as Adam's Apple forms in the throat ; the wisdom teeth appear ; the shoulders become broader, and the chest deeper ; in short, the youth now assumes in full the physical appearance of a man.

MENTAL CHANGES.

These physical changes are perhaps even less marked than are the mental changes which accompany the same period. He no longer takes pleasure in the sports of his childhood. The top, the marbles, and the hoop are laid aside ; and if he seeks any amusements, it will be such as full-grown men indulge in.

New sensations, strange thoughts and desires, arise within him, which he knows not how to account for. He becomes bashful and shy in society, and ceases to feel at his ease with the girls who have formerly been his playmates. Often for a time he is disinclined to society, but prefers in solitude to indulge his strange feelings and awakened imagination.

Soon, however, he discovers that society has a new charm for him, and he experiences a peculiar pleasure heretofore unknown in the companionship of the opposite sex. He now begins to take an interest in business and politics ; his judgment

improves, his reason strengthens, and he feels within him the development of new strength and power. He has, in short, passed from childhood, and he now takes his place in the arena with full-grown men, and goes forth into the world, feeling that he is one of the "lords of creation."

It is sometimes said that boys of this age know more, in their own estimation, than at any other period of their lives. This is no doubt true; for now for the first time they feel their manhood rising within them, and it is not to be wondered at if for the time being it overtops their judgment.

WHAT PRODUCES THESE CHANGES.

Not only do these changes occur at the same time with the development of the generative organs, but they are directly dependent upon their development. This fact is abundantly shown in the castration of the lower animals. Notice the difference between the gentle and timid wether and the fierce and sullen ram. In the one the testicles have been removed, in the other they remain. A great many young men of the present day, we fear, make wethers of themselves, not by removing the testicles, but by abusing them; for, as we shall see, abuse of these organs tends to produce the same

effect as castration, although not in so marked a degree.

The same principle is also illustrated in the case of the bull and ox, and of the stallion and gelding. The bull is always a fierce, savage, and reckless animal, while the ox is gentle and submissive. The stallion moves off with a proud and lofty step, as though he were conscious of his own dignity and superiority, while the gelding usually has less spirit and a more gentle disposition. Were it not that the stallion is apt to be vicious and unmanageable, we believe that the practice of castrating horses would be much less common than it now is.

Again, observe the proud-stepping rooster, with his head and spurs erect, ready to fight any cock that chances to cross his path. Take away those testicles, and his head would droop, his body would become fat and clumsy, and the beautiful comb which now adorns his head would wither away.

What is true of the lower animals is even more true of the human species. We do not often see eunuchs in this country, for the operation of castration is very rare among civilized nations. Among some of the Eastern nations, however, this barbarous mutilation is occasionally practised. It is said to have been formerly practised among the children of the poorer classes of Italy, in order that they

might earn a livelihood as singers. If a boy is a fine singer, by being castrated before the age of puberty his voice does not change, and he will consequently make a good tenor singer. These eunuchs were formerly much employed in cathedral service, where women were not allowed to sing, but, by order of Pope Clement XIV., this barbarous custom was abolished. Not only did the eunuchs retain their child-voices, but they remained dwarfs in size, little or no beard grew upon the face, and their whole appearance was so marked as to make them readily distinguishable. This mutilation is rarely practised now, except among some of the half-civilized Oriental nations, where slaves are frequently made eunuchs, and employed by the kings and wealthy men as keepers of their harems.

AGE OF PUBERTY.

The average age at which puberty occurs is about fifteen years, but this is liable to considerable variation. In some boys it occurs as early as twelve or thirteen, and in others not until the age of seventeen or eighteen.

There are several causes which exercise an influence upon the development of puberty, among the most important of which is climate. Travellers in

the tropical climates tell us that both sexes arrive at the age of puberty two or three years younger than in this country.

With early puberty comes, also, early maturity and early marriage, so that it is by no means uncommon in the hot countries to find husbands and fathers at the ages of fourteen and sixteen. If we go to the northern climates of Lapland and Greenland, we find, on the other hand, that boys do not arrive at puberty, on an average, before the ages of sixteen or seventeen, making a difference of several years between the tropical and polar climates.

We find, also, that there is a difference in race, irrespective of climate, in regard to the age at which boys arrive at puberty. Boys of the Jewish and negro races develop one or two years younger than American boys, even though they may have lived in the same country for successive generations.

It may be thought that the warmer climate in which the Jewish and negro races formerly dwelt first caused this precocity; but if so, it shows that these peculiarities of constitution are not easily removed by subsequent change of residence. We find also, that the same principle holds true with those who migrate from a colder to a warmer climate. Many European families have within the last hundred years removed to Calcutta; but their descend-

ants, even in the third and fourth generation, do not acquire the precocity so universal among the natives.

Closely allied to the influence of race, is that of hereditary descent. The boys of some families arrive at puberty much earlier than those of others; and as a general rule, the children will approximate their parents in this particular.

Education and mode of life, also, have much to do in hastening or retarding the development of puberty. If a boy is fed upon plain and unstimulating food, his body developed by pure air and an abundance of exercise, and his mind kept free from passion and excitement, the different changes of his body will unfold themselves gradually, and puberty will appear at just that time when the development of the system demands it. But if the nourishment and development of the physical system is sacrificed to the premature development of the mind, imagination, and passions, then the body is brought to maturity before its time, and puberty appears at an age when the system is wholly unfit to sustain the important functions which accompany it. Boys in the city usually arrive at puberty earlier than those in the country. They are reared with a less robust physical system—their lives are more artificial—the concert, the theatre, the evening party, and the dance afford a constant round of exciting amuse-

ments, which tend to the early development of adolescence and puberty.

It is desirable that puberty should be established at about the normal time, which, in this climate, as we have seen, is between the ages of fourteen and sixteen. Those whose sexual functions are first developed at this age, are more likely to enjoy good health than those in whom these changes occur either earlier or later.

HYGIENE OF PUBERTY.

With the development of puberty there is, as we have seen, an awakening of new powers to be exercised, of new wants to be satisfied. It is the commencement of a struggle for supremacy between the animal and moral natures, which every youth has to undergo; and upon the manner in which he meets and decides this struggle, will depend to a great extent the course of his future life.

It is the design of Nature that the organs of generation should remain quiescent and undisturbed while the body is acquiring its full growth and development:

“ If a healthy, well-disposed boy has been properly educated, by the time he arrives at the age of fourteen or sixteen he possesses a frame approaching its

full vigor. His conscience is unburdened, his intellect clear, his address frank and candid, his memory good, his spirits are buoyant, his complexion bright. Every function of the body is well performed, and no fatigue is felt after moderate exertion. The youth evinces that elasticity of body and that happy control of himself and his feelings which are indicative of that robust health and absence of care which should accompany youth. His whole time is given up to his studies and amusements, and, as he feels his stature increase and his intellect enlarge, he gladly prepares for his coming struggle with the world." *

The fact that the organs of generation are developed at the age of puberty, is no reason that that they should be used at this time. Says Dr. Carpenter: "This development of the generative organs at puberty is attended with manifestations of the sexual passion ; but it can only be regarded as preparatory to the exercise of these organs, and not as showing that the aptitude for their exercise has already been fully attained. It is only when the growth and development of the individual are completed, that the procreative power can be properly exerted for the continuance of the race ; and all

* Acton.

experience shows that, by prematurely and unrestrainedly yielding to the sexual instincts, not merely the generative power is early exhausted, but the vital powers of the organism generally are reduced and permanently enfeebled, so that any latent predisposition to disease is extremely liable to manifest itself; or the bodily vigor, if for a time retained with little deterioration, early undergoes a marked diminution."

This principle is also abundantly taught in the analogy of the lower animals, as well as in the experience of mankind. Persons engaged in raising thorough-bred stock understand this fact. If a man is raising a stallion, which he hopes to be worth ten thousand dollars when he is eight years old, he does not allow him to cover mares when he is three or four years old. He understands that at this time the whole resources of the system should be directed toward building up the body, and laying the foundation of a strong and vigorous constitution. At the age of seven or eight years, when he has attained his full physical growth, he may be used without detriment to his value.

The same plan is also adopted in raising thorough-bred cattle; although in raising the ordinary stock of the farm this rule is disregarded, for most farmers

care more about the number of their stock than the quality.

What is true of horses and cattle is still more true of the human species. Until the body is fully developed, all the blood and nervous force are needed to give the system strength and endurance, and to lay the foundation of a physical constitution which shall withstand sickness and disease, and be able to endure to the allotted time of threescore years and ten.

Let it be distinctly understood that every gratification of the sexual desires, whether by masturbation or sexual connection, before the full age of manhood, is a direct injury to the health and constitution. Says Dr. Acton, in speaking upon this point :

“It is, I take it, of vital importance that boys and young men should know, not only the guilt of an illicit indulgence of their dawning passions, but also the danger of straining an immature power, and the solemn truth that the *want* will be an irresistible tyrant only to those who have lent it strength by yielding ; that the only true safety lies in keeping even the thoughts pure. Nothing, I feel convinced, but a frank statement of the truth, will persuade them that these new feelings, powers, and delights must not be indulged.

“ But what, too often, are the facts? The youth, finding himself in possession of these sexual feelings and powers, utterly ignorant of their importance, or even of their nature, except from the ribald conversation of the worst of his companions, and knowing absolutely nothing of the consequences of giving way to them, fancies, as he, with many compunctions, begins a career of depravity, that he is obeying nature’s dictates. Every fresh indulgence helps to forge the chains of habit, and, too late, the truth dawns on him that he is, more or less, ruined for this world; that he can never be what he might have been, and that it can only be by a struggle as for life or death that he can hope for any recovery. In too many there is no strength left for any such struggle, and, hopelessly and helplessly, the victim drifts on into irremediable ruin, tied and bound in the chain of a sin with the commencement of which ignorance has as much to do as vice.”

It may be asked, “Why are the sexual passions given to us, if not that we may derive pleasure from their gratification?” Like all our physical pleasures, they are only to be gratified subject to the control of reason. The purpose of sexual gratification is not for early and sensual indulgence, but for mature and lawful love. Says Shakespeare :

“If the balance of our lives had not one scale of reason to poise another of sensuality, the blood and baseness of our natures would conduct us to most preposterous conclusions; but we have reason to cool our raging motions, our carnal stings, our unbitted lusts.”—*Othello*.

It is this reason which the youth is called upon to exercise. Considerations of morality, of self-respect, and of health, unite to sustain him in his resolution; but he will have much to contend with, and it is well that he should understand this. As Acton truly remarks:

“Everything—the habits of the world, the keen appetite of youth for all that is new, the example of companions, the pride of health and strength, opportunity—all combine to urge him to give the rein to what seems a *natural* propensity. Such indulgence is, indeed, not natural, for man is not a mere animal, and the nobler parts of his nature cry out against the violation of their sanctity. Nay, more; such indulgence is *fatal*. It may be repented of. Some of its consequences may be more or less recovered from; but from Solomon’s time to ours it is true that it leads to a ‘house of death.’

“The boy, however, does not know all this. He has to learn that, to his immature frame, every sexual

indulgence is unmitigated evil. It does not occur to his inexperienced mind and heart that every illicit pleasure is a degradation to be bitterly regretted hereafter—a link in a chain that does not need many more to be too strong to break.”

CHAPTER VI.

SINGLE LIFE.

WE have already seen that while the body is maturing, the organs and functions of generation should remain quiescent. This period should be wholly devoted to physical and mental development, and nothing should be allowed to impede the progress of this important work. With the maturity of the physical system the proper age for marriage arrives, and the generative organs may now for the first time be brought into activity without detriment to the health.

REASONS FOR NOT MARRYING.

Many persons, however, are so situated that it is not expedient for them to enter the marriage relation. Some have indigent parents or friends dependent upon them for support; some have plans of study, or travel, which would make the care and support of a wife burdensome to them; some have inherited constitutional diseases which it would be wrong to entail upon posterity; many

others, in our artificial state of society, do not feel able to support a wife, and so defer the subject of marriage until the prime of manhood is passed, and their fortune is made.

This last class are especially frequent in our cities, where a large part of the young men live upon salaries which are barely sufficient to sustain them in their expensive habits. Marriage with them would mean cheaper room-rent and board, plainer clothing, less theatre-going, and the practice of rigid economy; and to this they will not consent.

CELIBACY NOT NATURAL.

While, therefore, marriage is the general rule, there is in every community a large minority who, for reasons more or less valid, abstain from the marriage relation. Such a life is not in accordance with nature, and is accordingly fraught with greater trials and greater risks to the health than married life. Statistics, in fact, prove the unhealthiness of celibacy. From the extensive investigations made by Bacqueral, it is shown that in proportion to their respective numbers, more than twice as many married men live to the age of seventy than single. As the registrar of Scotland truly remarks, it almost means, "marry or die."

ADVANTAGES OF CONTINENCE.

The dangers of celibacy may be almost entirely averted by leading a life of perfect continence. By continence we mean entire abstinence from sexual indulgence or excitement in every form.

This definition will exclude those who practice masturbation, equally with those who indulge in sexual connection. It will also exclude those who excite the passions by indulging unchaste and lascivious thoughts. A man to be perfectly continent, must be chaste in thought and deed.

“We may confidently assert that no man is entitled to the character of being continent, or chaste, who by any unnatural means causes expulsion of semen. On the other hand, the occasional occurrence of nocturnal emissions, or wet dreams, is quite compatible with, and indeed is to be expected as a consequence of continence, whether temporary or permanent. It is in this way that Nature relieves herself. Any voluntary imitation or excitement of this process is in every sense of the word incontinence. I would exclude from the category of continent men those (and they are more numerous than is generally supposed) who actually forbear from sexual intercourse, but put no restraint upon impure thoughts, or the indulgence of sexual excitement,

provided intercourse does not follow. This is only physical continence ; it is incomplete without mental continence also.

“ Such men as these, supposing the sexual excitement to be followed by nocturnal emissions, as it often is, and this with great detriment to the nervous system, must not be ranked with the continents : to all intents and purposes they are Onanists.”*

USE OF THE SEXUAL ORGANS NOT NECESSARY TO THEIR PERFECT DEVELOPMENT.

We have already seen the influence which the sexual organs have upon the growth and development of the body and mind. It is these which give to man his physical form, his strength, his courage, and his manhood. In order, therefore, that a man may attain to the highest development of his manly powers, his generative functions must be healthy and fully developed.

Some have supposed that it requires occasional use to maintain the fullest health and vigor of the reproductive organs ; but this is abundantly proven to be untrue. The stallion who is never allowed to cover mares is as perfect and well-developed as

* Acton.

the one whose sexual powers are brought into activity, and will maintain his sexual vigor much longer. *So, too, the man who leads a perfectly continent life may be perfect in all the functions of his manhood, and he will usually retain his sexual vigor beyond the average of mankind.

It is a great mistake to suppose that the sexual organs will waste away for want of use. Says Dr. Acton : " I have, after many years' experience, never seen a single instance of atrophy of the generative organs from this cause. I have, it is true, met with the complaint. But in what class of cases does it occur? It arises in all instances from exactly the opposite cause—abuse. The organs have been worn out, and hence arises atrophy. Physiologically considered, it is not a fact that the power of secreting semen is annihilated in well-formed adults leading a healthy life and yet remaining continent. The function goes on in the organ always, from puberty to old age. Semen is secreted sometimes slowly, sometimes quickly, and very frequently under the influence of the will. We shall presently see that when the seminal vessels are full, emission at night is not unfrequent. This natural relief will suffice to show that the testes are fully equal to their work when called upon. No continent man need be deterred by this apocryphal fear of atrophy of

the testes from leading a chaste life. It is a device of the unchaste—a lame excuse for their own incontinence, unfounded on any physiological law. The testes will take care of their action if not interfered with.”

The danger to young men lies, as will be seen, not in chastity, but in unchastity. There is, in fact, a direct antagonism between strong sexual development and high intellectual, moral, or even physical attainments. Children of strong sexual propensities have usually dull intellects. The professional libertine and sensualist is almost always deficient in intellectual as well as moral development.

We wish especially to impress upon the mind the fact that it is not the *exercise* of the generative organs, but their *presence* and *healthy development* which give to man his ennobling qualities. Many physiologists believe that the semen which is not lost from the body is re-absorbed into the blood, and it is this which gives to the system the peculiar and ennobling qualities which characterize the male. Certain it is that in proportion as the system is debilitated by the escape of semen from the body the distinguishing qualities of the sex are lost.

This fact is well understood in its practical application in life. Persons who wish to attain to

their highest physical or mental strength avoid squandering their powers in the pleasures of love. Even the pugilist and the athlete understand this, and, however licentious they may be at other times, when training for any special contest they live in perfect continence.

The antagonism between sexual indulgence and high intellectual attainments has always been appreciated. Says the greatest of English philosophers, Lord Bacon: "They do best who, if they cannot but admit love, yet make it keep quarter, and sever it wholly from the serious affairs and actions of life ; for, if it check once with business, it troubleth men's fortunes, and maketh men that they can no ways be true to their own ends."

Many of the greatest men of the world have lived lives of perfect continence. Sir Isaac Newton, the philosopher ; Alexander von Humboldt, the greatest of modern physicists ; Kant, the metaphysician ; the statesman Pitt, and the sculptor Gibson, were single men. Sir Isaac Newton is said to have remarked, before his death, that during his whole life not one drop of seminal fluid had ever escaped his body. These, and many other examples which we might give, show that the highest intellectual attainments are consistent with, nay, more, are even aided by, a life of perfect continence.

DIFFICULTIES IN MAINTAINING CONTINENCE.

Persons who have always led pure and chaste lives usually experience but little difficulty in maintaining continence. There will be times when they may experience feelings of uneasiness and restlessness—when application of the mind becomes difficult, and sexual thoughts and desires force themselves upon the attention; but these feelings are neither so frequent nor so powerful but that a young man endowed with ordinary will and force of character can, if he chooses, keep them in subjection.

In occasional instances the sexual passions are so strong that the trial will be severe, and it will require the utmost decision which the young man possesses to hold his passions in check. The condition in these extreme cases is vividly described in the following extract from the distinguished French author, Lallemand:

“There is a constant state of orgasm and erotic preoccupation, accompanied with agitation, disquiet, and *malaise*, an indefinable derangement of all the functions. This state of distress is seen particularly in young men who have arrived at puberty, and whose innocence has been preserved from any unfortunate initiation. Their disposition becomes soured, impatient, and sad. They fall into a state

of melancholy or misanthropy; sometimes become disgusted with life; are disposed to shed tears without any cause. They seek solitude in order to dream about the great mystery which absorbs them—about those great unknown passions which cause their blood to boil. They are at the same time restless and apathetic, agitated and drowsy. Their head is in a state of fermentation, and nevertheless weighed down by a sort of habitual headache. A spontaneous emission or escape, which causes this state of plethora to cease, is a true and salutary crisis, which for the moment re-establishes the equilibrium of the economy.”

The principal difficulty and suffering in maintaining continence is experienced by those who have formerly been incontinent, or who try to live a life of partial instead of complete continence. When the sexual organs have once been roused to activity by sexual intercourse, masturbation, or even by the indulgence of impure thoughts, they often become hard and cruel taskmasters, and inflict an amount of sexual suffering far disproportionate to the pleasure their gratification has yielded.

“ If any one wished to undergo the acutest sexual suffering, he could adopt no more certain method than to be incontinent, with the intention of becoming continent again when he had ‘sown his wild

oats.' The agony of breaking off a habit which so rapidly entwines itself with every fibre of the human frame is such that it would not be too much to say to any young man commencing a career of vice, 'You are going a road on which you will *never* turn back. However much you may wish it, the struggle will be too much for you. You had better stop now. It is your last chance.'

"There is a terrible significance in the Wise Man's words, '*None* that go to her return again; neither take they hold on the paths of life.'"*

The difficulty of maintaining partial continence is forcibly shown in the severe sexual suffering of widowers, and of married men, who are temporarily prevented from intercourse with their wives. The apparently undue haste with which widowers often contract a new marriage, is in most instances occasioned, not by a want of respect for their former companions, but by the sexual suffering which they endure.

Let no young man, therefore, attempt to palliate the cravings of sexual desires by sexual gratification in any form. Instead of subduing the enemy with which he has to contend, he is only giving him new supplies and ammunition, and in the next encounter he will find him a far more formidable foe than

* Acton.

before. The only safety lies in maintaining perfect continence. This is also by far the easiest way, for each victory over the passions makes the next contest lighter. The young man who determinedly and uniformly subjugates his passions, will find in a little time that he has an easy mastery over them.

AIDS TO CONTINENCE.

In the contest with his passions which the single man is called upon to undergo, there are several means of assistance of which he may avail himself with a fair prospect of success. Some of the more important of these means we will now proceed to consider.

Morality and Religion.—First in importance in controlling the sexual desires, we would mention devotion to moral and religious thoughts and subjects. The influence of the mind upon the sexual feelings is well understood. If a man indulges in lascivious thoughts, or allows himself to read impure literature, he is almost certain to arouse his sexual passions. It should, therefore, be his constant endeavor to keep such thoughts and topics from the mind; and this can in no way be better accomplished than by dwelling much upon religious subjects, reading books pervaded by a pure and

elevated morality, and associating only with those whose conversation is chaste and ennobling. The wide contrast between such thoughts and those pertaining to the passions will tend to make sensuality repugnant, and thus exclude it from the mind.

The indulgence of sensual feelings not only causes the desire for present gratification, but it also increases the activity of the testicles and the secretion of the seminal fluid, and thus becomes a stimulus to the sexual passions. On the other hand, if the mind is kept entirely free from sexual thoughts, the activity of the seminal organs is lessened, and the sensual propensities greatly moderated.

It should also be borne in mind that the indulgence of the sexual passions in any way, except in wedlock, is a moral wrong—is a sin. If this fact is firmly impressed upon the mind, it may be of no small service in dispelling illicit desires. It is not, however, our purpose to enlarge upon this part of the subject, which pertains to the religious teacher rather than to the physician, though the silence of most ministers upon this important topic would be a sufficient excuse for our treating upon it.

Intellectual Employment.—The healthy and energetic exercise of the mind in any intellectual or scientific pursuit, tends to moderate the sexual passions. In some instances, very intense mental

application has been known to so completely subjugate the sexual instincts as to render the man for the time being impotent ; though in no case does it require more than a few days of change of scene and occupation to restore the normal functions.

Idleness and mental inactivity always favor the development of sensuality. With nothing of importance to preoccupy the mind, it seeks its own gratification in following the lead of the sexual propensities. The young man, therefore, who would be master of himself, should avoid idleness even as he would avoid sensuality itself, and should engage with zeal in some pursuit which will absorb his whole time and attention.

The following advice from Dr. Carpenter upon this subject is valuable and pertinent :

“ The author would say to those of his younger readers who urge the wants of nature as an excuse for the illicit gratification of the sexual passion, try the effects of close mental application to some of those ennobling pursuits to which your profession introduces you, in combination with vigorous bodily exercise, before you assert that the appetite is unrestrainable, and act upon that assertion. Nothing tends so much to increase the desire as the continual direction of the mind toward the objects of its gratification, especially under the favoring influence

of sedentary habits ; while nothing so effectually represses it as the determinate exercise of the mental faculties upon other objects and the expenditure of nervous energy in other channels."

Exercise.—The importance of exercise in moderating the strength of the sexual desires has long been recognized. The ancient fable makes the chaste goddess Diana the patron of the chase, thus showing that the Greeks well understood that physical exercise had power to assuage the stings of love.

Exercise, when carried to marked fatigue, will, in all cases, greatly lessen the activity of the sexual organs. We have known many men who seek and obtain relief from amorous desires by engaging for an hour or two in vigorous exercise. Those especially who have little taste for intellectual pursuits, will find steady and severe labor almost a necessity to them in maintaining continence ; while every person, whatever his tastes or occupation may be, will be greatly benefited by one or two hours' active exercise each day.

Diet.—By living on a plain and very meagre diet it is possible to almost entirely suppress the sexual tendencies. Thus we find that during years when there is a great scarcity of food, and people are obliged to live on a starvation allowance, there is a very marked diminution in the number of children

born. This insufficiency of food is necessarily injurious to the health, and keeps the bodily vigor much below its normal standard. It is, however, possible, by a properly regulated diet, to moderate the sexual appetites without detriment to the general health. To this end, tea, coffee, and all alcoholic stimulants, should be entirely avoided. If warm drink is desired, crust or barley coffee may be employed. Meat should not be used more than once each day, and then only a small quantity should be taken. The diet should consist principally of vegetable food, and of this the amount should be limited to the actual demands of the system.

In carrying out the directions we have given, care must be taken not to go to extremes. Our object should be to maintain the perfect development of the mental and physical powers, and still keep the passions subject to the will. It will not do to rely upon exercise and diet alone; for any system of labor and starvation which shall annihilate the passions is highly detrimental to the health. It is much better, by the cultivation of the moral nature and the will, to meet and overcome temptation, than to attempt to annihilate a natural propensity, which is the source of the noblest qualities of our manhood.

NOCTURNAL EMISSIONS.

One symptom which often attends the healthy and vigorous development of the reproductive organs we must mention in this place, although we shall have occasion to refer to it again in a future chapter; for it is often a bugbear to those who attempt to lead continent lives. We refer to the involuntary emission of semen, which usually occurs at night during sleep. This is supposed by many to be a certain indication of disease. So far from this being true, it is often only an indication of perfect health. These emissions serve as a sort of safety-valve to the system. The semen is sometimes formed faster than it can be taken up into the blood, the seed-bags become overloaded, and the sexual passions become strong and hard to control. At this crisis nature wisely provides that the excessive accumulation of semen shall escape, and thus the equilibrium of the system is restored.

These emissions are most frequent and troublesome in those who have formerly been incontinent, and they are not unfrequently attended with disease of the sexual organs, as we shall show in the chapter on spermatorrhœa; but it is, nevertheless, true that they often occur in persons who are in the enjoyment of perfect health. This fact is well

understood by all intelligent physicians, and would probably never have been called in question, but for the advertising books of a certain class of unprincipled and often uneducated men, who seek, by giving false symptoms, to frighten young men, that they may extort from them exorbitant fees for their services.

The following extract from a pamphlet by Prof. Newman, on the "Relation of Physiology to Sexual Morals," contains some sensible and just remarks upon this subject: "Every organ is liable occasionally to be overcharged, and, *in every youthful or vigorous nature*, has power to relieve itself. Considering that in man the sexual power is *not*, as in wild animals, something which comes for only a short time, and then imperatively demands gratification; but, on the contrary, is perennial, constant, and yet is *not* necessarily to be exercised at all, his nature cannot be harmonious and happy unless it can right itself under small derangements of balance. But this is precisely what it does; and I cannot but think it of extreme importance not to allow a bugbear to be made out of *that*, which on the face of the matter is God's provision that the unmarried man shall not be harmed by perfect chastity. That it is ever other than natural, normal, and beneficial, I never heard or dreamed, until I was past the age

of fifty. The Roman poet Lucretius, in a medico-philosophical discussion, speaks of this matter quite plainly, and treats it as *universal to mankind* (iv. 1024-1045). He imputes it to strength and youthful maturity, not to weakness ; and while his description is tinged with epic extravagance, the thought of its doing any one harm evidently does not cross his mind, much less that it is an evil effect and disgraceful stain from previous vice. Now that I learn so many medical men to be unacquainted with it except as something immoderate, and thereby depressing and dangerous, morbid and alarming, I have thought it a duty to make inquiries, where I could properly do so, from persons of whose true purity from early life I am thoroughly persuaded ; and all that I elicit, direct or indirect, confirms me in what I have all my life believed. A clergyman reminds me that the ceremonial regulations in the books of Moses count upon it, and so does Jeremy Taylor,—dates, countries, and races (says he) distant enough : he adds his belief that it is perfectly healthful, and tends to be nearly periodical. A traveller to Jerusalem tells me that he found one of the superior monks ‘unclean’ for the day on account of it ; and an inferior monk alluded to it as an ordinary matter.

“ On gathering up what I know, what I have read,

and what I believe on testimony, I distinctly assert, first, that this occurrence is strictly spontaneous—that it comes upon youth who not only have never practised, but have never heard of such a thing as secret vice ; that it comes on without having been induced by any voluntary act of the person, and without any previous mental inflammation : next, that it occasionally comes upon married men when circumstances put them for long together in the position of the unmarried ; moreover, even when they become elderly, it does not wholly forsake them under such circumstances. My belief is that it is a sign of vigor. At any rate, I assert most positively that it is an utter mistake to suppose that it necessarily weakens or depresses, or entails any disagreeable after-results whatever. I have never so much as once in my life had reason to think so. I have even believed that it adds to the spring of the body, and to the pride of manhood in youths.

“Of course there is an amount of starvation (at least I assume there is) which would supersede it ; but to overdo the starvation, even a little, may be an error on the wrong side. And, again, there is probably an amount of athletic practice which will take up all the supplies of full nutriment in the intensifying of muscle, or of vital force, and leave no

sexual superfluity. But labor so severe is stupefying to the brain, and very unfavorable to high mental action. Plato is not alone in regarding athletes as unintellectual. Aristotle deprecates their system of over-feeding and over-working. And after all, you will not succeed in exactly keeping the balance, whether you try by starvation or by toil; and the over-careful effort will but produce either a valetudinarian, or else a religious ascetic who is in terrible alarm lest nature inflict upon him a momentary animal pleasure."

EVILS OF INCONTINENCE.

It may seem to some of our readers that if a life of continence is attended with so many trials, the blessing is too dearly bought. It should be remembered, however, that nothing which is truly valuable comes without labor and sacrifice. The possession of good health, of a clear and vigorous mind, and, more than all, of a conscience void of offence before God, are rewards for chastity which far more than repay the cost of the struggle. Besides, there is a moral degradation inseparable from a life of unchastity which any one who fully comprehends should shrink from with fear and abhorrence. No evil in the whole catalogue of vice tends so quickly

to debase all that is noble in a man, as that of illicit sexual gratification. The poet has truly called it

“The sin, of all, most sure to blight—
The sin, of all, that the soul’s light
Is soonest lost, extinguished in.”

So, also, in a similar strain, the Scottish bard says :

“The sacred lowe o’ weel-plac’d love,
Luxuriantly indulge it ;
But never tempt th’ illicit rove,
Tho’ naething should divulge it.
I waive the quantum o’ the sin,
The hazard o’ concealing,
But och ! it hardens a’ within,
And petrifies the feeling !”

But aside from the moral considerations, there are important physical evils which attend the unnatural indulgence of the sexual passions, either in the form of sexual connection or masturbation. There are special diseases which are propagated by illicit intercourse, called venereal diseases ; and no man, however prudent and careful he may endeavor to be, can long engage in licentiousness and escape.

The evils of masturbation, although of a different

nature from those of illicit indulgence, are many times even more serious in their results.

A description of these important topics—venereal diseases, and the effects of masturbation—will form the subject of the two following chapters.

CHAPTER VII.

VENEREAL DISEASES.

VENEREAL diseases—from “Venus, the Goddess of Love,”—is the name applied to a class of affections which are usually contracted from sexual connection, especially from licentiousness and promiscuous intercourse.

It may be thought by some that these diseases have no importance for the moral part of the community, but only for the immoral and licentious, and, therefore, it is a violation of propriety to discuss them in a popular medical work. Such an opinion can only be founded on ignorance; for, as we shall see, there are many ways in which these diseases may be contracted without reflecting on the chastity of the individual. Besides, some of their effects are far-reaching in their consequences, extending to the wife and children of the offender, through them to be transmitted to yet other succeeding generations.

Again, there can be no question but that a knowledge of the danger of illicit intercourse affords a strong incentive to chastity and morality. “My

people are destroyed for lack of knowledge," is the declaration of Jehovah. It is the ignorant and foolish that despise instruction,—that "die for want of wisdom." A man who fully comprehends the risk will be likely to think twice before he incurs the danger of bringing corruption, disease, and perhaps death, upon himself, his devoted wife, and his innocent children.

A thorough knowledge of these diseases, and of the manner in which they are contracted, is therefore of importance to the community, as a powerful check to licentiousness, and as a matter of individual protection and safety.

GONORRHŒA, OR CLAP.

This is by far the most common disease met with as the result of sexual indulgence. It has existed among all nations from the earliest times of which we have any record. This disease is clearly referred to by Moses in the fifteenth chapter of Leviticus, where he lays down rules for the observance of those who are afflicted with "a running issue out of the flesh."

The disease is confined principally to the membrane lining the water-passage of the male and the vagina of the female. It may, however, affect the

conjunctiva, or mucous membrane which covers the front part of the eye.

MODES OF CONTRACTING GONORRHŒA.

Gonorrhœa is usually contracted by contagion from intercourse with those who are similarly affected, and is therefore mainly propagated by licentiousness. It was formerly supposed that this was the only way in which this disease could be taken, and no physician hesitated to tell a patient who presented himself with gonorrhœa, that he had had intercourse with a diseased woman. This, in the case of married men, sometimes gave rise to unjust suspicion against a true and virtuous wife, which not unfrequently resulted in her abandonment and disgrace.

Fortunately, the light of modern science and investigation enables us to take advanced grounds upon this subject, so that apparently crooked paths are sometimes made straight. The best medical authorities to-day do not hesitate to positively affirm that gonorrhœa may have its origin from other sources than having intercourse with those who are themselves diseased. Sexual intercourse just before, during, or soon after the menstrual flow has frequently been known to produce a gonor-

rhœa as severe as that contracted in any other manner. Leucorrhœal discharges will also produce the same trouble. It is not necessary that the leucorrhœa should be profuse; but a slight discharge from the vagina, which might not be noticed, may produce severe inflammation when brought in contact with the urethra. Inflammation of the neck of the womb, ulceration, and several other difficulties may also, under some circumstances, give rise to gonorrhœa. The fact, that in the majority of cases men escape this disease when exposed to the causes we have enumerated, does not prove but that occasionally gonorrhœa may be contracted in this manner. Facts enough have accumulated to prove it beyond a question.

A gonorrhœa contracted from other causes may be just as contagious and severe as though it originated from one who was diseased; and no physician can tell the one from the other. We should, therefore, be extremely careful about condemning a person as licentious until we have other grounds upon which to found our opinion. One or two cases recorded by Bumstead, in his admirable work on venereal diseases,* will be sufficient to illustrate this fact:—

* Cases 2 and 3, pages 70 and 71.

“A young man became attached to a young female friend, ‘à peine sortie de l’enfance,’ and married her after some years of mutual attachment. Some months after this ‘hymen fortuné!’ the young man was compelled to take a journey to some distance, and, while travelling, he experienced pain in making water, and shortly after perceived a discharge from the urethra. On arriving at a town, he consulted an eminent surgeon, who assured him he had a gonorrhœa. ‘Mais, monsieur, je suis nouvellement marié,’ and he assured the learned surgeon that he had never known any woman but his wife, from the hour of his birth. ‘Comment,’ replied the surgeon, smiling, ‘vous voudrez me cacher la cause de votre mal : de quel pays etes-vous ? Vos jeunes gens rougiroient ; je vous certifie, monsieur, que vous avez une belle et bonne chaude-pisse.” The youth continued to protest his innocence. Some days after, the testicle swelled. The surgeon now assured him that if his wife were virtuous, he must have had ‘une affaire’ with another woman, and that the pox remained in his blood from that period. Between the two alternatives, of his own or his wife’s purity, of course he could not entertain a doubt. He wrote to her an indignant and passionate letter, and then blew out his brains. The unfortunate woman submitted to an examination

which proved her free from disease—never uttered another word—shortly miscarried, and died. So much for the honor of our noble profession !”

“ In another instance, a few years since, in one of the New England States, a clergyman came very nearly being deposed from the ministry and convicted of adultery, on the testimony of his physician that a urethral discharge for which he had treated him could only have arisen from impure intercourse !”

We might give similar cases that have occurred in our own experience, but these are sufficient to show that a man who contracts gonorrhœa has not necessarily had intercourse with a diseased woman.

SYMPTOMS OF GONORRHOEA.

Gonorrhœa generally makes its appearance within five days after exposure, although in exceptional cases it may not appear before the seventh or tenth day. At first the symptoms are very slight, consisting only of a tickling or uneasy sensation at the mouth of the urethra or water-passage. There may be also a slight secretion, which glues the orifice of the penis together. This gradually increases in amount until, by pressure, a drop or two of the matter can be forced from the water-passage. A slight

smarting is now felt in passing the urine. This constitutes the first stage of the disease, and usually lasts from two to four days.

These symptoms increase in severity for two or three days, when the second or inflammatory stage sets in. The whole of the extremity of the penis is now much swollen, so that the foreskin fits much more tightly than natural. This swelling occasionally extends to the testicle and also to the groin. The discharge now becomes more profuse, first appearing whitish like milk, and then yellowish or greenish, and coming away in drops. The smarting and pain now experienced in passing water is intense, and is often compared to a hot iron introduced within the water-passage.

Another source of severe suffering in this stage is the peculiar nocturnal erections, called *chordee*, which are apt to come on during the night while the patient is warm in bed. The patient is awakened from a sound sleep and finds the penis erected, very painful, and curved upon itself in the shape of a bow. The suffering from this difficulty is often so severe as greatly to interfere with sleep or rest.

Buboes, or swellings in the groin, occasionally occur as the result of gonorrhœa, but they are not common. The second stage lasts from one to

three weeks, and is usually more severe in persons who have gonorrhœa for the first time.

Then comes the third stage, or stage of decline. This is marked by a gradual abatement of all the symptoms we have noticed ; the swelling subsides, the discharge diminishes, and the pain mostly ceases. Chordee is, however, very likely to continue during a part or the whole of the third stage.

The disease now assumes a chronic form, and may last for weeks. Gonorrhœa, if left to itself, or badly treated, rarely terminates in less than three months, while it may continue a much longer time.

GONORRHŒA A LOCAL DISEASE.

Let it be borne in mind that gonorrhœa is a local disease, affecting only the part to which the poison has been applied. There is a popular impression that gonorrhœa, if not cured, gets into the blood and becomes constitutional ; and we have found not a few who suppose that it runs into syphilis, thus confounding the two diseases. Gonorrhœa is as distinct from syphilis as small-pox from measles. A person may occasionally have gonorrhœa and syphilis at the same time, from exposure to the poison of both diseases ; but otherwise the two diseases are never associated. Gonorrhœa may impair the blood like

any other local sore, producing emaciation and general debility, but it never poisons the blood or produces any constitutional disease which remains after the local sore is healed.

The question is often asked, How long is gonorrhœa contagious? or, At what stages are others liable to be inoculated from it? It is most contagious during the active stage of the disease; but there is danger of inoculation as long as there is any discharge from the penis. There is no safety, except to abstain wholly from sexual connection until the discharge is entirely cured.

TREATMENT OF GONORRHŒA.

First Stage.—The treatment of gonorrhœa depends upon the condition of the patient, and the stage of the disease. Patients are usually anxious for a speedy cure, and run from doctor to doctor in search of immediate relief. If the disease is treated in the first stage, we have a remedy which is quite certain to arrest it; but the great majority of cases do not apply to the surgeon until pain and swelling come on, and then it is usually too late for this treatment to be of any service. The remedy to which we refer is nitrate of silver, which may be prepared for use after the following formula:—

Nitrate of Silver,	-	-	-	3 grains.
Water,	-	-	-	12 ounces.

This should be injected into the end of the penis, and repeated every three hours for one or two days.

Certain rules should be observed in making this application, and these will be serviceable in all injections of the penis. The bladder should be emptied ten or fifteen minutes beforehand, to wash out whatever secretions may be in the urethra, and also to avoid urinating too soon after the application. Then draw the foreskin back, and take hold of the end of the penis with the left hand, placing the thumb above and the forefinger below the orifice, and introduce the point of the instrument with the right hand. In this way the penis may be held so firmly around the syringe as not to allow any of the injection to escape. After the injection is thrown up, the instrument should be withdrawn, and the solution retained for about a minute. The injection can be made to pass along the urethra by rubbing the under part of the penis with the forefinger. It is usually best to make two injections at each time, as the first does little more than wash out the passage.

This treatment, it should be remembered, is only

applicable to the first stage of the disease, before the swelling and pain have set in. If used after this stage, it will do harm rather than good.

Second Stage.—In the treatment of the second stage, the bowels should be kept loose by the use of Rochelle or Epsom salts, the diet should be plain and nourishing, all stimulants should be avoided, and any reading, conversation, or association which can excite the passions should be strictly interdicted.

It is also a matter of great importance that the patient should abstain from all active exercise. If he would consent to remain quietly in the recumbent position, he might recover in one-half the time usually required. Walking, riding, and standing in the street or at a desk, are all injurious.

The penis should be kept free from any collection of matter. Water injections, as hot as can be borne, are the most grateful local applications that can be used, and generally afford the greatest relief to the scalding and pain in passing urine. There is little danger of using the water too hot. It should be injected with a rubber syringe every hour or two. The penis should be immersed in a dish of warm water for a few minutes before and after using the injection.

When the severe inflammatory symptoms begin

to subside, the following injection can be used after each passage of water :

Glycerine,	-	-	-	-	1 ounce.
Laudanum,	-	-	-	-	20 drops.
Water,	-	-	-	-	3 ounces.

This should be followed up for a few days until the severe symptoms disappear.

Third Stage.—The third stage is, as we have seen, marked by an abatement of the pain and inflammation, and of the scalding during the passage of the urine. The most important treatment during this stage is the use of astringent injections. These should not be used too early, as they would then aggravate the disease; but when the severe soreness and inflammation subside, even though the discharge may continue profuse, astringents should be commenced. There are several astringents which may be employed, but the following we have found the best and most reliable :

Sulphate of Zinc,	-	-	-	-	10 grains.
Water,	-	-	-	-	4 ounces.
Morphine,	-	-	-	-	4 grains.

If the pain produced by the injection should last more than ten minutes, the proportion of the zinc may be somewhat diminished. This injection

should be introduced with a syringe as already described, four or five times each day, or after each passage of the urine. After the discharge is nearly well, a solution of alum may be substituted in place of the above wash.

In addition to the use of astringent injections, balsam of copaiba and cubebbs may now be employed with marked benefit. The following formula for preparing it will be found as convenient as any:

Balsam of Copaiba,	-	-	-	1 ounce.
Fluid Extract of Cubebbs,	-	-	-	1 ounce.
Pulverized Alum,	-	-	-	2 drachms.
White Sugar,	-	-	-	4 drachms.
Mucilage of Gum Arabic,	-	-	-	3 drachms.
Water,	-	-	-	2 ounces.

Take from one-half to one teaspoonful three or four times each day. Persons who dislike the taste very much can get the copaiba and cubebbs prepared in capsules of gelatine. From three to five of these should be taken three times each day. The copaiba and cubebbs should be used in connection with the injections for several weeks, or until a cure is effected.

Sexual intercourse and alcoholic stimulants must be entirely abstained from, or the treatment will be unsuccessful. Milk, when it does not disagree, is

one of the best articles of diet; but meat and highly-seasoned food should not be used, except in cases where the general health is impaired, when meat may be allowed. After the balsam of copaiba is left off, if the patient is weak and debilitated, he may take, for a few weeks, ten or fifteen drops of tincture of iron in sweetened water, after each meal.

The chordee, which is one of the most distressing accompaniments of this disease, may usually be controlled by the use of the following camphor pill:

Pulverized Camphor, - - 1 drachm.

Pulverized Opium, - - 20 grains.

Make into twenty pills. Dose, one each night.

The reader may be interested to know what is the average duration of this disease in the hands of the best surgeons. If taken in the first stage, it may be cured in a few days. Few, however, apply for treatment at this time, as the symptoms are too mild to attract attention. After it has passed into the second stage, few cases are completely cured in less than from three to four weeks, and many require a still longer time. Great care must be observed, for a month at least, after every vestige of the disease has disappeared, or a relapse may be produced.

GLEET.

If gonorrhœa is not cured, or properly treated, after a few weeks or months, it passes into a chronic form, called gleet. This consists in a discharge from the urethra, unaccompanied by pain or inflammatory symptoms. Gleet may be produced by mechanical injury, stricture of the urethra, or inflammation of the bladder; but it is most frequently caused by gonorrhœa.

The discharge from gleet may be communicated to others, producing an acute gonorrhœa, though it is not as contagious as gonorrhœa during its earlier stages. It, however, requires but a slight imprudence or excess to bring on a relapse of the disease. Sexual indulgence, alcoholic stimulants, or a long ride may be sufficient to change the comparatively mild gleet into severe gonorrhœa. No patient can consider himself perfectly sound and well so long as there is any discharge, of whatever nature, from the urethra.

In the treatment of gleet, it is usually necessary to build up the system with tonics and with nutritious food; for, as a rule, the general health is much impaired. The diet, therefore, instead of being light, and consisting mostly of farinaceous food, as during the acute stages of the disease, should be

abundant, and should consist largely of fresh meats, eggs, fish, milk, and vegetables; but all stimulants and highly-seasoned food should be avoided.

To aid digestion and improve the general vigor of the body, the following tonic may be taken :

Citrate of Iron and Quinine,	-	$\frac{1}{2}$ ounce.
Water,	- - - - -	2 ounces.
Syrup of Lemon,	- - - - -	6 ounces.

Take one teaspoonful after each meal.

The copaiba and cubebs will do little or no good in the treatment of gleet. Injections, properly used, may be of great benefit, but as ordinarily employed they will do but little service. In many cases we find that certain portions of the urethra become ulcerated, while other portions remain healthy. This may be detected by introducing an ordinary catheter into the water-passage. Its introduction will cause little or no inconvenience until the sore spot is reached, when the pain will be severe.

In making injections for the cure of gleet, we have been most successful with the use of the hard-rubber long-pipe syringe figured on page 207. This can be introduced into the urethra until the point of the instrument passes the tender spot, when the medicine can be discharged from the side-openings

directly upon the diseased surface. A favorite remedy with us is the following :

Persulphate of Iron,	-	-	-	$\frac{1}{2}$ drachm.
Water,	-	-	-	- 6 ounces.

To be used as injection night and morning. The sulphate of zinc may also be used in the treatment of gleet, prepared according to the formula given on page 129, when treating of the third stage of gonorrhœa. A common gum catheter, smeared over with citrine ointment, and introduced the whole length of the urethra once each day, will often be of great service in connection with the other treatment.

When there is a scrofulous or syphilitic taint of the system, the iodide of potassium should be taken for two or three months. The best method of preparing it is to dissolve one ounce of iodide of potassium in one pint of simple syrup, and flavor with wintergreen or lemon. Dose, one to two teaspoonfuls after each meal.

Cases of simple gleet will, in nearly all cases, be cured by the treatment we have given. If, after a faithful trial, it is not cured or greatly improved, there is strong reason to suspect that the disease is kept up by stricture of the urethra, or other disease, which will require surgical interference.

CHANCROID.

Chancroid, like gonorrhœa which we have just considered, is a disease usually contracted in sexual intercourse. It consists of one or more ulcers or sores, situated in most cases upon some part of the genital organs. It is always produced by contagion, and is communicated by the matter from a chancroid ulcer coming in contact with a mucous membrane, or with a scratch or sore upon some part of the body. The sores may, therefore, be produced by the application of the matter to any part of the body; but as it is most frequently communicated in sexual intercourse, the most usual seat of the ulcer in men is the head of the penis, which is covered by a delicate membrane so thin that it readily absorbs the poison. Any sore or scratch upon the genitals renders them still more susceptible to contagion.

CHANCROID DISTINCT FROM SYPHILIS AND
GONORRHŒA.

Chancroid has until within a few years been confounded with syphilis, and even now there are many physicians who suppose the two diseases are iden-

tical. This confusion probably arises from the fact that chancroid and syphilis occasionally exist together in the same individual, from inoculation with the poison of both diseases. There are, however, many and very important distinctions between the two, as we shall point out in the description of syphilis: and we only follow the example of all the most eminent of modern surgeons in describing them as distinct diseases.

Chancroid occurs more frequently than syphilis; but less frequently than gonorrhœa. It resembles gonorrhœa in one respect—it is wholly a local disease; those parts of the body only are affected which receive the specific poison. The blood never becomes contaminated, and it runs into no other disease. Like gonorrhœa, also, one attack affords no immunity from another, but a person may have the disease as many times as the poison is received into the system.

SYMPTOMS OF CHANCROID.

When the poison of chancroid is taken into the system, the part to which it is applied begins almost immediately to show signs of inflammation, and in the course of from three to six days an open sore is formed. The peculiarity of the sore is that it

eats away and destroys the surrounding parts. When the sore first breaks out, the skin which forms its edges often appears as though it had been perforated with a punch. The edges of the sore are ragged, the bottom presents a worm-eaten appearance, and the secretions are usually very abundant, and of a grayish color.

Buboes, or swellings in the groin, are frequently produced by chancroid ; and, when they occur, they nearly always mature. The scrotum is also sometimes the seat of the disease. If there are pimples or sores upon the body, and the matter is introduced into these, other chancroid sores will be developed similar to the first. The parts in the immediate vicinity of the chancroidal sore are fast involved, and in severe cases a large part of the organ may be destroyed. The patient, however, has this consolation : there are no after effects, as in the case of syphilis, but when the sore is once healed, he is rid of the disease.

TREATMENT OF CHANCROID.

If the patient can be seen within five or six days of its commencement, the ulcer can be at once destroyed, and the disease arrested, by the use of a powerful caustic. Nitrate of silver, applied in the stick, has been a very popular remedy, and in mild

cases it is often sufficient. We have, however, a much more certain remedy in nitric acid. Three or four drops can be applied directly to the sore by means of a glass rod, or with the end of a common match. The pain at first is very severe, but it mostly passes away in a few minutes. The acid should be left in contact with the sore one or two minutes, and then neutralized by washing the parts in water. The sore should then be covered by a fold of cloth wet in warm water, and over this a dry cloth may be placed. In the course of three or four days the part destroyed by the nitric acid will separate from the rest of the flesh, and leave a healthy sore, which, if kept clean, will heal in the course of a few days.

If the disease is far advanced, we should employ nearly the same means, but will be obliged to repeat the application several times. The nitric acid should be applied every few days until a healthy sore is produced. During the interval of the application the parts should be kept wet with the following wash :

Claret Wine,	-	-	-	-	5 ounces.
Compound Spirits of Lavender,					5 ounces.
Tincture of Opium,	-	-	-	-	$\frac{1}{2}$ ounce.
Water,	-	-	-	-	3 ounces.
Tannin,	-	-	-	-	2 drachms.

Put two table-spoonfuls of this in a tumbler of water, gradually increasing the strength.

Great care should be used in the applications of nitric acid, not to destroy more of the surrounding parts than is necessary. Extensive destruction and deformity of the penis often arises from patients attempting to treat themselves. The use of so powerful remedies should only be employed by the careful physician or surgeon.

The tendency of chancroid is to get well of itself in the course of six or eight weeks; but the treatment will shorten its duration very much, as well as save the surrounding parts. Great care should be observed in keeping the parts clean. Any offensive smell can be removed by using a weak solution of carbolic acid and water.

SYPHILIS.

Syphilis is the least frequent but most severe of the venereal diseases. Like chancroid, it is always produced by contagion, and is usually communicated by sexual intercourse; though it may be produced by the accidental or intentional application of the syphilitic virus to a mucous surface, or sore upon any part of the body. Like chancroid, also, it first manifests itself in a sore or ulcer situ-

ated in most cases upon the head of the penis. This sore is called chancre, or sometimes a hard chancre, in distinction from the sore of chancroid, which is called soft chancre.

DISTINCTION BETWEEN SYPHILIS AND CHANCROID.

The chancre of syphilis usually manifests itself in about two weeks after exposure, though in rare cases it may be delayed until the third or fourth week. In this respect syphilis is unlike chancroid, which makes its appearance almost immediately after exposure. The chancre first appears like a hard lump, or kernel, which shows itself at the point where the poison has been introduced. This kernel is accompanied by an induration or peculiar hardness of the part immediately surrounding it, which is usually unaccompanied by inflammation. This lump and hardening is often all that attracts the patient's attention, as the first sore may be of so slight a character as to pass unobserved. Occasionally the chancre takes on severe inflammation, and the surrounding parts are extensively involved, but usually the sore is very much milder than that of chancroid.

In syphilis there is commonly but one sore, while

in chancroid the sores often come in groups of two or more at a time. The secretions of the chancre are much less copious than those of the chancroid. One attack of syphilis also protects the system against subsequent attacks. Like measles, scarlet fever, and small-pox, a person can only have it once during his life; but he may have chancroid and gonorrhœa as often as he is exposed to them.

Chancre is attended by enlargement of the lymphatic glands, which are situated near the sore. As the chancre usually comes upon the genital organs, the glands of the groins upon one or both sides are the ones usually affected. There will be a group of small, hard bunches, unaccompanied by any soreness or tenderness; though in very rare cases they become inflamed and maturate. In chancroid the glands are not usually affected, but when they do enlarge, they are very tender, and nearly always suppurate.

Another peculiarity of syphilis is, that the secretions from the sores inoculated into the same person will not produce other chancres; but in chancroid, as we have seen, an indefinite number of sores may be produced upon the affected person by repeated inoculations. This means is sometimes made use of to distinguish between the two dis-

eases, when any doubt exists as to the true character of the primary sore.

It will thus be seen that, while there are many points in common between syphilis and chancroid, in many other respects they are totally unlike. It is, however, sometimes difficult to distinguish the one from the other; so that it is hardly to be expected that those who have not given especial attention to the subject will be able in all cases to discriminate between the two diseases. In many cases, it requires the utmost skill of the experienced surgeon to determine the one from the other.

SYPHILIS A CONSTITUTIONAL DISEASE.

The most important peculiarity of syphilis, and that which makes it especially to be dreaded, is its constitutional effects. Gonorrhœa and chancroid, as we have seen, are only local diseases, and when the primary sore is once healed, the patient may consider himself cured. Not so, however, with syphilis. The primary sore or chancre is but the beginning of evils. This is usually quickly healed, or it may be so slight as hardly to attract attention; but, in the course of a few weeks or months, other symptoms manifest themselves, that indicate the presence of one of the most severe and loathsome

affections which has ever cursed the human family.

The healing of the primary sore or chancre has little to do with the subsequent course of the disease. Many surgeons, in fact, believe that it makes no difference with the after effects whether this is treated or not. If caustics should be applied immediately upon the appearance of the sore, it would afford no protection against the constitutional effects. The chancre is simply the external manifestation of the disease at the point where the poison first entered the system ; but the poison has already been in the system for two weeks or more before the sore appears, and the blood is fully impregnated with it, so that the disease is already beyond the reach of remedies applied to the external sore. If, therefore, a person imagines he has a chancre, and does not have any of the secondary symptoms within six months, he may conclude that he has been mistaken in the character of the primary sore.

THE CONSTITUTIONAL SYMPTOMS.

The secondary symptoms vary considerably both in the time and manner of their first appearance. They generally show themselves in about six weeks after the first appearance of the chancre, but in

some cases they may appear a little earlier, while in others they may be delayed until the fifth or sixth month.

The first symptoms are a feeling of general lassitude, accompanied by headache and fleeting pains in various parts of the body. This is soon followed by an irruption of a red rash, or of little blotches or pimples upon the skin, falling out of the hair, with sores upon the scalp, enlargement of the glands upon the back of the neck, and little white patches or ulcers upon the mucous membrane lining the mouth, throat, and nose. These ulcers in the mouth and throat often become very bad, giving rise to severe soreness of these organs. Some of the worst cases of catarrh that we have ever met, have been the result of constitutional syphilis. The disease may also extend to the eyes, producing the severest forms of sore eyes, and not unfrequently resulting in blindness.

These symptoms may continue with great severity for several months, or may go away and reappear again at intervals of a few weeks or months.

If the disease is not cured or arrested by treatment, in the course of a few months (or, in some cases, years), it will pass into the third stage, called tertiary syphilis, when a new set of symptoms manifest themselves. The deeper structures of the body

are now affected. The irruption upon the skin, when any appears, consists of deep sores, which discharge matter, and when healed leave a copper-colored scar which gradually fades out and becomes white. Hard bunches may appear beneath the skin in various parts of the body, called gummy tumors, which remain for some weeks or months, and then ulcerate, producing severe sores. The bones also now become affected; bunches called nodes form upon them, which give rise to severe pain, and frequently large portions of bone are destroyed by the disease. The bones of the head are especially liable to suffer, and many times we have seen the nose and roof of the mouth entirely eaten away by syphilis.

Aside from these local manifestations, syphilis affects the general health, and tends rapidly to undermine the constitution. It corrupts the blood, it weakens the digestive powers, it takes away the strength and ambition. If a person is predisposed to consumption, scrofula, rheumatism, or erysipelas, the presence of the syphilitic poison in the system rouses these diseases into activity, and renders them much more virulent and fatal than they otherwise would be.

Sometimes syphilis attacks the brain, and produces paralysis, insanity, or idiocy. There is, in

fact, no part or organ of the body which it may not attack, and no disease of the system which it may not unite with and aggravate.

THE CONTAGION OF SYPHILIS.

Syphilis may be communicated from the secondary or tertiary sores, as well as from the primary chancre. If the secretion from a syphilitic sore is introduced into the blood of a person not affected with syphilis, he will find his system contaminated with the disease. A physician may have a sore upon his finger, and while treating a syphilitic patient get a little matter into the sore, and so contract the disease. A person having a scratch upon his hands or face may contract syphilis by wiping upon a towel used by a diseased patient. It is sometimes even communicated by a kiss. Mucous patches frequently occur upon the lips, which may communicate the poisonous virus to the lips or mouth of another.

Even the blood of a syphilitic patient is poison. In this manner syphilis may be transmitted by vaccination. If only the vaccine virus is taken from the sore, there is no danger; but if a drop of blood from a syphilitic subject should be mixed with the virus, it may cause an innocent victim to be inocu-

lated with this terrible disease. Think of a disease so poisonous that every drop of the person's blood is capable of communicating it to others!

SYPHILIS HEREDITARY.

Syphilis is also communicated from parents to their innocent offspring. Of no other disease can it so truly be said, "The iniquity of the fathers is visited upon the children, and upon the children's children, unto the third and the fourth generation." If both parents are syphilitic, the mother will seldom give birth to a live offspring; or if alive, its blood will be so putrid with corruption that it will survive but a few days or weeks. Some such children are born blind or deaf, some foolish, and nearly all with more or less bodily deformity. If they live to manhood or womanhood, which is improbable, it will only be to find relief in an early consumptive's grave.

You see, therefore, how rapidly the general prevalence of this disease would tend to destroy any particular race or nation. Let but its putrid seeds be scattered broadcast in any community, and the fruit will be disease, misery, death, and gradual extermination.

This truth we find exemplified in the case of

many savage nations. We read that the Indians of this country are gradually dying out and fading away "before the advancing strides of civilization." It is true in a certain sense, for syphilis is a disease of civilization, which was communicated to the Indian by the white man. With their extremely licentious habits, it quickly spread itself over entire tribes, until there was scarcely a person free from it. This is the civilization which is to-day carrying off the Indian tribes, and which threatens, in a very few generations more, to entirely exterminate the race.

A short time since we met a gentleman who had travelled extensively among the tribes of the West, who confirmed the views we have just expressed. He spoke of visiting one tribe, which numbered eight hundred, and there were but *three children* among them; and the whole tribe, dogs, horses, and all, were literally rotten with syphilis! Fifty years from now this tribe will live only in the pages of history.

The same thing is also true, to a great extent, of the inhabitants of the Sandwich Islands. By the efforts of missionaries the people of these islands have become civilized and Christianized, and to-day are, perhaps, one of the most moral and enlightened nations of the earth. But the sailor had visited

them before the missionary, and had scattered in almost every household the seeds of physical death, which no subsequent morality has been able to eradicate, but which threatens, in a very few generations, to leave the race extinct.

The effects of syphilis upon the offspring are not always uniform, and are greatly modified by treatment. In some stages it is much more transmissible than in others. Syphilis sometimes, as we have seen, manifests itself by active symptoms, and again it remains latent for one or more years, and the person will think that he is cured, when it will break out afresh with all its former fury. If impregnation takes place during the active stage of the disease, the children will be much more affected than if it takes place during the latent stage. In some instances children begat during the latent stage will seem to be perfectly healthy, while in other cases the father may suppose himself free from disease, until its appearance in his children shows that its putrid seeds still lurk in his own system. Sometimes the offspring may have syphilis inherited from the father, and the mother escape; but more frequently father, mother, and child are all affected. If the mother contracts syphilis after the seventh month of pregnancy, the child will usually escape.

A child born of syphilitic parents is a source of danger to all around it. The only person who can tend it with safety is the mother who bore it. The nurse who applies it to her breast, and the friend who kisses it are liable to contract this loathsome disease.

Think of handing a legacy like this down to the rising generation! What man so polluted as to wish to entail the evil he has suffered upon his posterity! What father would wish to give his daughter in marriage to a man who would thus pollute her own blood, and that of her offspring? Many sad cases we might relate which have come under our observation, where virtuous and intelligent ladies have sacrificed their health and happiness and life by a union with such a man.

No person should think of marrying in less than three years after he has contracted syphilis, even when he has received the very best treatment, and at least one year should elapse after the disappearance of the last symptom before the marriage.

TREATMENT OF SYPHILIS.

The local treatment of the primary sore, or chancre, when it is necessary that any should be employed, is the same as for chancroid, but milder

applications are usually sufficient. In some instances the sore may be made to heal more quickly by combining constitutional treatment with the local. This, however, is usually unnecessary, for the sore is easily healed, and, as we have already seen, no treatment at this time will prevent the future manifestations of the disease.

It is supposed by some that constitutional syphilis is an incurable disease ; but we are not among the number who share in this belief. This view is also contrary to the opinion of most surgeons who have had extensive experience with this complaint. Dr. Bumstead, of New York, who is probably the best authority in this country upon venereal diseases, even goes so far as to claim that some mild cases of syphilis will get well of themselves without treatment. This, however, can only be true of very mild cases, occurring in persons of robust health ; and even then it will require much more time and be attended with greater suffering than when proper treatment is employed. In the majority of cases, when syphilis is not treated it will manifest itself in its most loathsome forms, and will finally end a wretched life by a premature death.

The aim of treatment should be to cure the disease quickly, safely, and pleasantly. The two remedies upon which our chief reliance must be

placed in expelling the disease from the system are iodine and mercury in some of their forms or combinations. These are remedies that require to be administered with great care and discretion, or serious injury may result from their use.

The treatment of a disease like this is too important and difficult to be left to the patient. The different stages of the disease require different remedies; the amount of the medicine must be accurately adjusted to the activity of the disease, and the condition of the general health must be carefully watched and provided for. These are matters which a patient cannot well understand and appreciate. He should therefore place himself under the care of one competent to look after his case, and should continue the treatment faithfully and persistently until every vestige of the disease disappears. This requires much time and patience, for the most skilful treatment cannot be efficacious without being followed up for a period of at least several months.

When syphilis is treated in its early stages, and cured, it usually leaves the health but little, if any, impaired; but when it passes on into the third stage, and affects the deep tissues and bones of the body, although the disease may afterward be eliminated, some of its effects will still remain. So

terrible a disease cannot long invade the system without, to some extent, undermining the constitution, so that ever afterward the person will find he has not the vigor and endurance which he once possessed

If the facts we have communicated in regard to venereal diseases were more generally understood, we believe it would do much toward improving the morals of the people. The dread of punishment, although not the highest incentive to virtue, is one, nevertheless, which will often restrain men from evil when other and nobler motives fail. If men will not be virtuous from principle, the dread of contracting a disease like this, and more especially of communicating it to their innocent wives and children, and thus bringing sorrow and misery into the sacred precincts of their own household—this, if nothing else, will tend to restrain them from the gratification of their lusts.

CHAPTER VIII.

MASTURBATION.

AMONG the many evils that corrupt the youth of our land, we believe there is none more pernicious in its influence than that secret indulgence of the passions known as masturbation, or self-abuse. Other sins may bring upon the transgressor more of the curses and frowns of the world, but none is more certain to sap the foundations of his physical constitution, and to fill his mind and heart with vice and corruption. It is, in fact, one of the stepping-stones to licentiousness. So long as the sexual passions are undisturbed, they are easily held in subjection by the will ; but when they have once been aroused and stimulated by self-abuse, they become a goading passion, exciting lascivious thoughts, and impelling the person to sins which otherwise would be easily resisted. It is true that there are many masturbators who do not commit the deeper sin against society of licentiousness, yet the tendency of this practice is in that direction.

EXTENT OF THIS PRACTICE.

Considerable diversity of opinion exists as to the extent to which masturbation prevails among the youth of the present day. Practiced as it is in secret, with every effort made for concealment, it is only the occasional cases where utter ruin stares the victim in the face that are brought to the knowledge of the world. There is a disposition on the part of most persons to form their opinions from the experience and observation of their own early life, so that while some believe the habit to be almost universal, others think it is of rare occurrence.

Parents, especially, are unwilling to believe that this practice exists among their own children. They will acknowledge, in a general way, that masturbation is quite common, but they would fain believe that their own children are exceptions, and that they are entirely ignorant of the uses and abuses of the sexual organs. These opinions, as we shall presently show, are often not only erroneous, but fatal.

Physicians are more competent than any other class to judge of the prevalence of this habit; for their peculiar relations to the sick make them intimate with men's secrets, and show them many

scenes beneath the surface of society which are hidden from the view of the world. While there is some conflict of authority upon this subject, it is yet the united testimony of all physicians who have had extensive practice in the treatment of youth, and especially of those who have had the oversight of public schools, that this habit is fearfully common.

Many of our schools and seminaries of learning, particularly those in which boys are educated away from home, are perfect hotbeds of this vice. Dr. Acton believes that in England it is more common in the private schools than in the public ; but we see no reason for making that distinction in this country.

Our own observation as physicians leads us to believe that at least one-half the youth of this country practice the habit to a greater or less extent. Many learn of its fearful consequences in time to break it off and avoid any serious results ; but many others continue the practice until their health and constitution are seriously impaired.

MASTURBATION IN CHILDREN.

Masturbation is practiced at a much earlier age than is often supposed. The power of erection may

occur in very young children—sometimes even with infants in the cradle ; and although there is rarely at this time any emission of semen, yet the child derives a pleasurable sensation from manipulating the sexual organs which impels him to keep up the practice. The following remarkable case of masturbation in infancy is recorded by Dr. Hughlings Jackson, of London : “A woman came to the Hospital for Epilepsy and Paralysis on account of fits. She took the opportunity of asking my advice about her child. The boy was fifteen months old ; he was delicate, and had never been able to stand ; but the special circumstance about which the mother wished to hear my opinion was the peculiar position of his legs. The right leg was almost always placed high up over the other, and he kept it moving in a sawing way toward the pelvis. The penis was in the way of friction, and was quite stiff when I examined it. He was much annoyed at my interference with the movements of his leg, making resistance and crying.”

A still more remarkable case of precocious development is related by Mr. South, in the *Medico-Chirurgical Transactions* : “When he was about four months old, the hair on the pubes began to grow very thickly and black, at which time the penis increased in size, particularly the glands, so that it

gradually extended beyond the prepuce, till about fifteen months, when it was entirely exposed ; the pubes were then completely covered with black, curling hair. . . . Soon after this, she (his mother) noticed that his linen was stained two or three times in the week. . . . She also states that since he has been in town (six weeks), the emissions have been more frequent than for some time previously."

Cases like this are fortunately very exceptional, but as we have already shown (Chapter IV.) cases of partial sexual development during childhood are by no means rare.

CAUSES WHICH LEAD TO MASTURBATION.

Children of the nervous temperament are more addicted to this vice than others, though it is by no means confined to this class. Boys in town who attend theatres and exciting entertainments are more frequent victims than those in the country who lead a quiet and more natural life. Anything which excites the sexual passions has a tendency to induce masturbation. Boys who are reared in idleness, who read exciting novels, view obscene pictures, listen to vulgar stories, and indulge lascivious thoughts are almost certain to become the victims of this habit.

On the other hand, when the time is spent in healthy physical and mental exercise, the sexual system is not as likely to be excited, and injurious habits are less likely to be acquired.

Some, as we have already seen, have naturally a precocious development of the sexual passions, and experience sensations early which should be reserved to a much later period. This tendency is often inherited from the parents. It is frequently noticed that when the father and mother possess strong sexual passions, the same are developed in their offspring, and thus the tendency to this vice descends from parent to child.

HOW THE HABIT IS ACQUIRED.

In some cases this practice is learned without a teacher. The boy plays with his private parts because of the agreeable sensation it gives, or perhaps rubs them to relieve the irritation or itching from which they suffer, and thus accidentally discovers that he can excite his sexual passions and perhaps cause an emission of semen.

In the majority of cases, however, the practice of masturbation is communicated by a teacher. Boys learn it of each other as they play together at the same sports, or sleep together in the same bed.

Nurses have frequently been known to teach the children under their charge to play with their private parts in order to keep them quiet, and thus have sown the seeds of the future practice of masturbation. Even full-grown men have been found so lost to all sense of decency and shame as to instruct the youths of their acquaintance in the secrets of this vice. So many are the ways in which it may be acquired, that no parents, however careful they may have been in the selection of associates for their children, can feel sure they have escaped this terrible habit.

EFFECTS OF MASTURBATION.

The practice of masturbation is very injurious, even before the age at which semen is formed. Aside from its influence in producing sexual precocity, to which we have already alluded, the excitement of the sexual passions causes a nervous shock that is very debilitating to the whole system.

“However young the children may be,” says Lallemand, “they get thin, pale, or irritable, and their features become haggard. We notice the sunken eye, the long cadaverous-looking countenance, the downcast look which seems to arise from a consciousness in the boy that his habits are suspected, and, at a later period, that his virility is

lost. I wish by no means to assert that every boy unable to look another in the face is or has been a masturbator, but I believe this vice is a very frequent cause of timidity. These boys have a dank, moist, cold hand, very characteristic of great vital exhaustion; their sleep is short, and most complete marasmus comes on; they may gradually waste away if their evil passion is not got the better of; nervous symptoms set in, such as spasmodic contraction, or partial or entire convulsive movements, together with epilepsy, eclampsy, and a species of paralysis accompanied with contractions of the limbs."

If the habit is abandoned before any semen is formed, the health and vigor of the child will generally be quickly restored; but if the practice is continued, the development of the generative functions will be hastened, and an unhealthy, watery semen discharged. Should the emission give pleasure, the youth will be in great danger of becoming a confirmed masturbator.

"The boy's health fails, he is troubled with indigestion, his intellectual powers are dimmed, he becomes pale, emaciated, and depressed in spirits; exercise he has no longer any taste for, and he seeks solitude. At a later period the youth cannot so easily minister to his solitary pleasures, and he

excites his organs the more as they flag under the accustomed stimulus. There is a case related by Chopart, of a shepherd boy who was in the habit of passing a piece of twig down the urethra, in order to produce ejaculation, when all other means had failed." *

Several cases have come under our own observation where the early practice of masturbation has entirely destroyed all pleasurable sensation from the natural use of the generative organs in later years. In all of these cases the habit had been carried to great excess, one man admitting that for several years he had practiced it several times each day. In other cases complete impotence has been produced by masturbation, while in all instances the sexual powers fail much earlier in life because of this habit.

MASTURBATION IN THE YOUTH AND ADULT.

With the development of puberty the habit of masturbation becomes much more enticing, and is practiced to a much greater extent. The pleasurable sensations, and the nervous excitement, are also greatly increased, while to the former sources

* Acton.

of debility is now added the direct injury from loss of semen.

The effects of masturbation are in many respects like those of excessive sexual indulgence, but are much more severe. It is an unnatural and forced action of these organs, and is therefore attended by very different results from their natural and intended use. It strikes at the fountains of life, and the forces that were designed by Nature to give the man energy, confidence, and manliness, are made to work his ruin. It dwarfs the intellect, shatters the nervous system, and has a demoralizing influence upon the whole body.

A person who practices masturbation, after a time finds that his mental powers are enfeebled, his memory fails, and he loses the power of application. If he is in school, or in any business which requires an active mind, he finds it difficult to fix his attention upon any subject long at a time. He is soon exhausted; he loses his energy and self-confidence, and becomes timorous, excitable, and easily discouraged. He is unsettled in his plans and purposes, and given to despondency and mental depression. A dull, stupid feeling comes over him; he loses his ambition, and becomes indifferent and careless. He often loses his taste for society, and prefers solitude, that he may gratify

his morbid passions, and dwell upon erotic ideas.

The bodily vigor becomes enfeebled, and in some cases the heart's action irregular. A peculiar form of dyspepsia is also frequently observed, in which there is a morbid appetite and a craving for food which is not satisfied by eating. A person may sleep well and have a vigorous appetite; still he seems enfeebled, and is quickly exhausted by labor.

In some instances the urinary passage is more or less irritable, and a smarting sensation is felt when the urine is voided. The testicles become irritable, and either shrink away, or become engorged with blood, and hang down much lower than natural. Varicocele is frequently produced by the constant excitement of these organs. Erections often occur without any exciting cause, or without sexual desires. The sexual organs become weakened, and the loss of semen is premature, and attended with little or no pleasurable sensation.

Some complain of a feeling as though ants were crawling up and down the spine, and have a dull, heavy sensation at the back of the neck and back part of the head.

After a time, the seminal organs become weakened and diseased, and the evils of nocturnal emissions are added to those of masturbation. "These

at first are attended with pleasurable sensations ; but later, the patient is only aware of ejaculation from having his attention attracted by the overflow of the secretion. In other instances the semen does not pass away in jets, but flows away imperceptibly. In some cases it makes its way into the bladder to pass out with the urine. Other patients will tell you that emissions have ceased to occur, but, on going to stool, or on the last drops of urine passing from the bladder, a quantity of viscous fluid, varying from a drop to a teaspoonful, dribbles from the end of the penis, which, if collected, or allowed to fall on a piece of glass and exposed to the microscope, furnishes spermatozoa in greater or less numbers." *

The question is often asked, why the loss of semen in this unnatural manner is productive of so much more evil than the legitimate use of these organs. It is not an easy question to answer, but the fact exists, and we must accept it. There are various theories given, but it is perhaps sufficient to say that one is the natural and intended use of these organs, and, when properly regulated, tends to invigorate the system, while the other is an unnatural and perverted use, and in all cases tends to weaken and debilitate the generative organs, and to impair the general health.

* Acton.

REMORSE OF CONSCIENCE.

One important reason for the greater evil effects of masturbation over marital excess, is the remorse of conscience which accompanies it. The masturbator usually sins knowingly. He has to some extent become acquainted with the terrible consequences of this practice, and he knows he ought to abandon it ; but he has not strength of resolution enough to succeed. He accordingly suffers not only the physical effects, but great mental depression soon comes on. He finds that he is no longer himself ; he has not the control of his own will. He secretly resolves after every act that it shall be the last, and exercises every power to resist the habit ; but his morbid passions are excited, and in his moments of weakness and almost temporary insanity, he gives way to his desires, only to be tortured anew by his inability to govern himself.

He becomes discouraged, disheartened, and almost sick of life, often wishing himself dead and out of trouble. His mind dwells upon himself every moment, and this only helps to make worse his already sad condition. It is the burden of his thoughts when he retires at night, and the first thing that occupies his mind in the morning.

Should he for a time engage in any amusement, or become absorbed in pleasant recreation, a single thought about himself will cast a cloud over him that renders everything gloomy and dispels all ideas of happiness. Life loses its charm for him, and his future looks dark and gloomy. If he allows himself to read the books that claim to give advice to erring youth, the chances are that it will only heighten his fear and render his condition more deplorable; for, as we have already remarked, it is a sad fact that most of the books published upon this subject have for their object the frightening of young men rather than the desire to do them good.

EXPERIENCE OF ROUSSEAU.

The sad condition of the confirmed and hopeless masturbator has been so vividly and forcibly described by Rousseau, who was himself a victim of this vice, that we cannot refrain from quoting somewhat at length his description of himself. It must be remembered that the description is of an extreme case, and occurring in a man of very gifted imagination and intellect. Yet many of the symptoms will be recognized by every confirmed masturbator. We especially commend the perusal of the extract

to those who cannot break off their debasing habit :—

“One might say that my heart and my mind do not belong to the same person. My feelings, quicker than lightning, fill my soul; but instead of illuminating, they burn and dazzle me. I feel everything. I see nothing. I am excited, but stupid; I cannot think, except in cool blood. The wonderful thing is that I have sound enough tact, penetration, even *finesse*, if people will wait for me. I make excellent impromptus at leisure; but at the moment I have nothing ready to say or do. I should converse brilliantly by post, as they say the Spaniards play at chess. When I read of a Duke of Savoy, who turned back after starting on his journey, to say, ‘In your teeth! you Paris shopkeeper!’ I said, ‘That is like me!’

“I find the same sluggishness of thinking, joined with the same vividness of feeling, not only in conversation, but even while I work. My ideas arrange themselves in my brain with incredible difficulty; they circulate there dully, fermenting so as to excite me, heat me, give me palpitations; while in the midst of all this emotion I see nothing clearly. I could not write a single word. I must wait. Insensibly this great turmoil calms down—the chaos disentangles itself—each idea puts itself in its own

place ; but slowly, and after long-confused agitation. Have you ever seen the opera in Italy? While the scenes are being changed, there is a disagreeable and prolonged disorder in these great theatres ; all the decorations are mixed up ; you see pulling and hauling everywhere, which is positively annoying ; everything seems on the point of tumbling down. However, little by little, all gets arranged—nothing is wanting ; and the spectator is astonished at seeing an exquisite scene succeed the long tumult. Almost the same kind of proceeding goes on in my brain when I want to write. Could I have waited, and rendered in all their beauty the images thus painted there, few authors would have surpassed me.

“ Hence arises the extreme difficulty I find in writing. My manuscripts, scratched, blotted, mixed up, undecipherable, attest the labor they have cost me. There is not one of them I have not had to transcribe four or five times before sending it to press. I have never been able to do anything pen in hand, with a table and my paper before me. It is out walking among the rocks and woods—at night in bed, while lying awake, that I write in my brain : it may be imagined with what slowness, especially for a man absolutely without verbal memory, and who has never in all his life been able to learn six lines

by heart. There are some of my sentences that I have turned and re-turned during five or six nights in my bed before they were in a state to be put on paper. Hence I succeed better in works that require labor, than in those which must be written with a certain degree of readiness, like letters,—a kind of composition of which I have never been able to catch the proper tone, and the effort at which is misery to me. I never write a letter on the smallest subject which does not cost me hours of fatigue ; or if I want to write at once what occurs to me, I can neither begin nor end ; my letter is a long and confused verbiage, hardly to be understood when read.

“ But not only is it a labor to me to express, but also to receive ideas. I have studied men, and I think I am a tolerably good observer ; yet I can see nothing of what I do see. I can hardly say that I see anything except what I recall ; I have no power of mind but in my recollection. Of all that is said, of all that is done, of all that passes in my presence, I feel nothing—I appreciate nothing. The external sign is all that strikes me. But after awhile it all comes back to me. I remember the place, the time, the tone, the look, the gesture, the circumstance—nothing escapes me. Then, from what has been done or said, I discover what was thought, and I am rarely deceived.

“ If I am so little master of my mind while alone, it may be conceived what I must be in conversation, where, to speak *à propos*, one must think at the same time, and at a moment’s notice, of a thousand things. The mere idea of so many proprieties, of which I am sure to forget at least one, is enough to intimidate me. I do not even understand how a person can dare to speak in company—for at each word one ought to pass in review every one that is present; to be acquainted with all their characters, and know their histories, in order to be sure to say nothing that may offend any. Certainly those who live in the world have a great advantage here. Knowing better what *not* to say, they are surer of what they do say; yet even from them slips many an unfortunate speech. Imagine the condition of a man who falls into it all from the clouds; he can hardly talk with impunity for a minute. In a *tête à tête* there is another disagreeable thing, which I find worse. I mean the necessity of talking constantly. If you are spoken to, you must answer; and if nothing is said, you must take up the conversation. This unendurable constraint alone would have disgusted me with society. I find no burden more intolerable than the obligation to speak at once, and constantly. I do not know if this arises from my mortal aversion to all subjection; but it is quite enough to

be obliged to speak to make me infallibly say something foolish.

“What is more fatal is that, instead of knowing how to hold my tongue when I have nothing to say, it is just then that, to pay my debt as quickly as possible, I have a mania for talking. I try in a hurry to stammer, promptly, words without ideas, only too happy if they mean nothing at all. In trying to conquer or hide my inaptitude, I seldom fail to display it.

“I believe that this is the real explanation of why, though I am not a fool, I have often passed for one, even with persons capable of judging; all the more unhappy because my physiognomy and my eyes promise something better, and my failure makes my stupidity all the more shocking to others. This detail, which a particular instance has suggested, will not be useless to any one who follows it. It contains the key of many extraordinary performances of mine, which have been attributed to an untamed humor of mine, which I do not possess. I should relish society as well as any one, if I were not sure to exhibit myself, I do not say only to disadvantage, but as something quite different from what I am. The system I have adopted of retirement and writing, precisely suits me. No one would ever have known from my presence what

I was worth ; no one would ever have suspected it."

INSANITY FROM MASTURBATION.

After seeing the tendency the practice of masturbation has to affect the nervous system and mind, it is not to be wondered at that it should frequently lead to insanity, and even to idiocy. There are no doubt sad cases which have occurred within the observation of many of our readers where bright intellects have been ruined and high hopes blasted by this pernicious habit.

A striking peculiarity of this affection is that it usually occurs in young men of conscientious morality. Says Dr. Ritchie, in his excellent treatise on this subject: "It might be expected that these cases would chiefly occur in members of families of strict religious education. Experience supports this expectation ; and facts also show that those who from this cause become insane have generally, to all appearance, been of strict moral life, and recognized as persons who paid much attention to the forms of religion. As will be afterward more fully stated, it is frequently observed, especially in the acute attack resulting from this cause, that religion forms a noted subject of conversation or delusion."

Dr. Acton also states that "it is probable that many of those young men whose insanity has become developed through revival meetings, of which there have been several instances, would on close inquiry be found to be of the class now occupying our attention."

The statistics of insane asylums abundantly prove the frequency of insanity from masturbation. In a leading institution in Ohio, fourteen per cent. of the inmates were brought there by masturbation; while the average of all the asylums of the country show a proportion of nearly ten per cent. from this cause.

In view of these terrible facts, we may well quote to the masturbator the feeling words of Ellis: "Would that I could take its melancholy victims with me in my daily rounds (at Hanwell Asylum), and could point out to them the awful consequences which they do but little suspect to be the result of its indulgence. I could show them those gifted by Nature with high talents, and fitted to be an ornament and a benefit to society, sunk into such a state of physical and moral degradation as wrings the heart to witness, and still preserving, with the last remnant of a mind gradually sinking into fatuity, the consciousness that their hopeless wretchedness is the just reward of their own misconduct."

These are sad facts to relate, but instead of frightening the unhappy victim into insanity, it should be a warning to him to abandon the habit. The uninitiated should also profit by these examples, and not take the first step, but live chaste, pure, and holy lives, that in riper years they may be able to exercise their sexual functions as nature designed.

TREATMENT OF MASTURBATION.

In the treatment of masturbation, the first thing to be done is to break up the habit. Unless this is accomplished, all other remedies are useless, and it is to be feared that the worst of the symptoms which we have described will be visited upon the unfortunate victim.

When the habit has been indulged but a short time, it can usually be stopped without difficulty ; but when it has been practised for a long time, like all other habits, it is hard to break loose from. The resolution to indulge less frequently is not sufficient ; it must be abandoned at once, entirely, and forever. Because a person has made a score of resolutions and not kept them, he must not be discouraged. He should feel that he can and must leave it off.

When the habit is once broken up, the cure is usually more than half accomplished. He has gained one important step ; he sees he is still master of himself, and this inspires him with hope and confidence that insures success.

The objects of treatment should be to assist the youth in mastering his passions, and to repair the injury which the system has already suffered. The remarks already made (Chapter VI.) in regard to maintaining continence, are especially applicable in these cases. The masturbator must remember, however, that he has a harder battle to fight than those who have always practised continence. The generative organs have been brought into such active use, and have acquired such an ascendancy over the other faculties, that they cannot be at once silenced. It will require a vigorous use of every means calculated to strengthen the will, to develop the physical system, and to hold in abeyance the sexual desires.

First in importance, the thought should be kept as much as possible away from sexual subjects, and away from the contemplation of his own condition. Such persons are very likely to be always looking for disease, and to brood over and magnify every uncomfortable feeling they may have. They should stop thinking about themselves, and should

engage in some pleasant business that will absorb their thoughts and keep their minds occupied. They should avoid reading novels and exciting literature, and in the place of these, devote their attention to botany, chemistry, or music—anything which will interest them and occupy their minds. The study of the lives of great and eminent men is usually interesting and beneficial to this class. In all cases they should avoid the society of the lascivious and vulgar, and neither listen to nor indulge in obscene conversation.

Perhaps the most valuable of the active means to be employed in controlling the animal passions is physical exercise, for when the blood is devoted to the muscles it is withdrawn from the testicles, and semen is secreted much more slowly. The exercise should be such as will engage the mind, and should be carried to quite marked fatigue. This subject, as well as other means for controlling sexual desires, we have already treated of in the chapter on single life, to which the reader is referred.

One excellent remedy for removing the irritable condition of the generative organs produced by masturbation, as well as for invigorating the general health, is the use of the sponge-bath. We cannot speak too highly of this remedy, not only as a cure for masturbation, but also as a valuable hygienic

practice for all persons, whether youth or adult. The following description, from a distinguished writer, as to the best means of taking a bath, will, we believe, be valuable to many of our readers :

“ The apparatus I recommend is a shallow painted zinc bath, such as can be purchased for about eleven shillings. The article is round, and not of the high-backed description termed “ the hip-bath.” With this, a water-can of a gallon and a half or two gallons capacity, and a honeycombed sponge (which holds water best) as large as the two fists, the outfit is complete.

“ Patients who have not been accustomed to sponge-bathing should use lukewarm water at first, and lower its temperature by degrees. The bather should sit down in the centre of the bath, his feet on the floor, and then for three minutes briskly squeeze the water over his back, chest, abdomen, and thighs, taking care to lead, as much as possible, toward the genitals. He may then stand in the bath, rapidly sponge the feet and legs, and rub dry, using roughish towels. Shower-baths should never, I think, be used by an invalid or weakly person. They are a luxury for the strong only, and I am disposed to think the sponge-bath, as a general rule, far preferable.”

Seminal emission, or wet dreams, will occur in

most cases after the habit is abandoned, if not before ; but unless quite frequent, they need not occasion alarm. These, as we have already seen, act as a safety-valve to the pent-up sexual passions. The loss of semen by emissions is in any case much less injurious than by masturbation.

In some instances there is a weakened and diseased action of the generative organs, giving rise to an excessive and unnatural loss of semen, which is highly injurious to the health. In those cases where the habit of masturbation is abandoned, and the directions we have given faithfully carried out, and still the health does not recover, it is to be feared that the debility is kept up by this cause. These are the cases which constitute true spermatorrhœa, to be described in the following chapter ; and when they do occur, no time should be lost in the application of appropriate treatment.

PREVENTION OF MASTURBATION.

The true remedy for masturbation must be looked for in prevention rather than in cure. The observation of almost every day confirms us in the opinion that this habit is almost invariably commenced in ignorance of its results. Parents too often neglect their duty in this matter, fearing that

instruction of this kind will only inflame the passions and awaken the curiosity of their children, thereby causing them to commit the very act they desire to restrain them from.

If silence on the part of the parents would keep a child in ignorance in even a majority of cases, we might look upon this plan with favor ; but we speak advisedly when we say that in four cases out of five it will fail. An amount of information, true or false, exists on this subject among children, even of tender age, of which parents have but little idea. There are filthy words and expressions rarely written and almost never spoken by men or women, which are perpetuated from generation to generation through the mouths of children. Most parents know that these things are true of their own past lives, but they would fain believe that their own experience was exceptional.

How much better it is that boys should receive true instruction from one competent to teach them, and one in whom they have confidence, than from the foul-mouthed boys who prowl about the streets and congregate upon the corners ! We believe that it is as necessary to warn boys and young men from the practice of masturbation, as to teach them to shun the intoxicating bowl, or the glittering abode of the harlot. It may not be altogether a pleasant

task ; but when the parent sees his son with his mind and body a shattered wreck, he will regret his neglected duty. But you say, " I have no fear of *my* children ; there is no danger of their falling into evil habits." You do not know this. Could you go with the physician and hear the sorrowful complaints of the unfortunate victims of masturbation, your eyes would be opened to the extent of this practice as they never have been before.

A few years ago, we gave a lecture upon this subject before the students of one of the leading colleges of New England. A number of the students afterward privately confessed to us that they had practised this habit for several years, without the slightest knowledge that it was injurious ; and not until one of the professors, in a talk to his students upon this subject, spoke of its effects and warned them against it, did they know its terrible consequences. From that moment they abandoned the habit ; but already had it made inroads upon their constitution, which would require time and careful treatment to amend. Could this same instruction have been given them when they were young, how much good would it not have accomplished ! To this day that professor does not know how many were benefited by his lecture ; but the students remember him as their benefactor. Would there

were only more such men who dare do their duty, and warn the youth of our land to shun the first approach to evil !

THE TRUE COURSE TO PURSUE.

In view of these facts, the course of parents and educators is plain. Let young children be taught modesty, and their minds kept as pure as possible. If at any time you have occasion, either from the decline of their health or other cause, to suspect this habit, do not let a day pass, but investigate the matter at once, even though it be several years before the age of puberty.

If parents are not willing to do this duty themselves, it may be intrusted to some one in whom they have confidence, or proper books may be given them to read ; though we are pained to admit that most of the literature upon this subject is unfit for their perusal.

As a general thing, it is not a good practice for boys to be allowed to sleep together, especially those of different families. Boys will do in bed, under cover of darkness, what they would not do at other times. In schools, especially where a number of boys are congregated together, a separate bed should be provided for each.

Usually it is not necessary to speak to children upon this subject until they have nearly arrived at the age of puberty. Then let some suitable person talk with them kindly and plainly. A few judicious questions will draw them out upon the subject, and if you find them ignorant, there is no need to be specific in your remarks ; but in a general way tell them of the great moral and physical evils which result from any handling or interference with the generative organs. If you find them already addicted to the habit, do not scold or threaten, but talk to them kindly and seriously, portraying in the strongest light the sin and evil of their conduct. Without apprising them of the fact, see that they are carefully watched. Let some suitable person be with them constantly day and night for some months, until the habit is thoroughly broken up. In the mean time their moral training should be carefully attended to, and they should be rigidly guarded from any reading or conversation which will excite the passions.

Many parents make a mistake in keeping their children in ignorance of the temptations and vices of the world. It is impossible that a child should always be kept aloof from the temptation to evil, and it therefore becomes the judicious parent to prepare him to meet and overcome temptation.

He must be taught to know good from evil, and this cannot be done by acquainting him only with the good. We have often watched those who have been so carefully fondled and guarded during their parental days, and, when turned out into the cold, selfish world, the chances are they will fall victims into the snares of the wicked.

Says Herbert Spencer, in speaking of moral education :

“Remember that the aim of your discipline should be to produce a *self-governing* being, not to produce a being to be *governed by others*. As your children are by and by to be free men, with no one to control their daily conduct, you cannot too much accustom them to self-control while they are still under your eye. Aim, therefore, to diminish the parental government as fast as you can substitute for it in your child's mind that self-government arising from a foresight of results. All transitions are dangerous, and the most dangerous is the transition from the restraint of the family circle to the non-restraint of the world. Hence the policy of cultivating a boy's faculty of self-restraint by continually increasing the degree in which he is left to his self-restraint, and by so bringing him step by step to a state of unaided self-restraint, obliterates the ordinary sudden and hazardous change

from externally-governed youth to internally-governed maturity."

"Very few young men," says Sydney Smith, "have the power of negation in any great degree at first. Every young man must be exposed to temptation; he cannot learn the ways of men without being witness to their vices. If you attempt to preserve him from danger by keeping him out of the way of it, you render him quite unfit for any style of life in which he may be placed. The great point is not to turn him out too soon, and to give him a pilot."

To the views expressed by these distinguished authors we fully subscribe. We can but believe that, if children were earlier taught to exercise control—to deny themselves whatever was hurtful or evil—they would be far less likely to become victims of masturbation, or any other form of self-indulgence.

CHAPTER IX.

SPERMATORRHŒA.

SPERMATORRHŒA is the term applied to that condition of the system which is accompanied by the unnatural and excessive involuntary loss of seminal fluid. All persons who have involuntary seminal loss have not spermatorrhœa ; for, as we have already seen, an occasional emission of semen is not inconsistent with perfect health. It is only when the loss is the result of a diseased condition, and is attended by injury to the health, that it can be called spermatorrhœa. This fact must be distinctly borne in mind, for many writers have claimed that any involuntary loss of semen was spermatorrhœa. If this definition were true, then in many cases spermatorrhœa would be a healthy, and not a diseased condition.

CAUSES OF SPERMATORRHŒA.

The practice of masturbation is no doubt a fruitful cause of spermatorrhœa, though it is by no means the only one. The harsh and unnatural

means made use of in exciting the passions tend to produce local derangements of the generative organs. The water-passage, prostate gland, and outlet of the seed-bags, are especially liable to become congested and irritable, rendering the sexual functions peculiarly sensitive to impressions of every kind. In this condition an erotic dream, lascivious thoughts, or the slight irritation of the private parts caused by the clothing in walking or riding, is often sufficient to produce an emission of semen.

In some cases spermatorrhœa occurs without any of the local manifestations which we have described, when it is no doubt due to a peculiar condition of the nerves which supply the generative organs. It is, in fact, believed by some physicians that spermatorrhœa is always dependent upon some affection of the nervous system; but this there is good reason to doubt. It is true that, in all cases of derangement of the generative organs, the nervous system is more or less affected; but in most instances it is more reasonable to suppose that these symptoms are the result of sexual debility rather than their cause.

Masturbation is no less active in producing the nervous derangement which attends spermatorrhœa, than in causing the local changes. Says Dr.

Bartholow: "Experience has abundantly shown that the lesions resulting from masturbation are those due to expenditure of nervous force and derangement of the intimate and harmonious relation existing between the sexual system and cerebro-spinal centres, and not to a mere loss of seminal fluid ; for under no other circumstances is so small a discharge from the body accompanied by so serious results. This conclusion is further strengthened by the more important results which follow masturbation than spermatorrhœa, although the mere seminal loss in the two cases may be equal."

Excessive sexual indulgence is also a not infrequent cause of spermatorrhœa. The natural use of the generative organs is far less injurious than their perverted use ; yet they may become weakened and diseased by overwork, the same as any other organ of the body. We will however only allude to this subject here, as we shall treat upon it more fully in the chapter on marriage.

Hard labor, especially mental labor, stricture of the urethra, stone in the bladder, and affections of the nervous system or spine, should also be mentioned as occasional causes of spermatorrhœa. A case illustrating this last occurred in our practice in the spring of 1870. The young man was wounded in the fall of 1863, while serving in the

war of the rebellion—the ball passing through both nates, and grazing the lower portion of the backbone. In a few weeks the acute symptoms passed away, but left a chronic discharge from the wound, which had been kept up by the presence of dead bone. Since he was wounded, he has had frequent emissions of semen, from which his general health has greatly suffered, although he had never practised masturbation, and had suffered from no seminal difficulty before the occurrence of his wound. In this case the difficulty was undoubtedly produced and kept up by the wound being situated in such close proximity to the sexual organs.

We have also had several cases of spermatorrhœa, evidently dependent upon spinal disease, from which the patient was suffering. These causes of spermatorrhœa are by no means infrequent, and they should be distinctly borne in mind, for there is often a stigma attached to this disease, under the impression that it is only produced by abuse of the sexual organs.

Those who have an occasional loss of semen are more likely to become the victims of spermatorrhœa than others; though, as we have already stated, this alone does not constitute disease. As Dr. Bartholow has well remarked: “This spontaneous evacuation is an effort of nature, under these cir-

cumstances, to supply the lack of use of a physiological function. That such occasional loss is physiological rather than pathological, seems confirmed by the good effects which ensue from it upon the mental and physical constitution of the individual. The inquietude of mind, the headache, and the hebetude of body, which are experienced anterior to the evacuation, become relieved thereby; the muscular movements are then more easily executed, the headache ceases, and the mental operations are more rapid and clear. In some subjects, however, these evacuations may become so frequent and excessive as to constitute a pathological state. This occurs in clergymen, in studious persons of sedentary habits, and in those whose nervous apparatus has been deranged by dyspepsia. The excessive use of such stimulants as coffee and tobacco, by continent persons who have weak digestion, slight muscular development, and a preponderating nervous system, powerfully contributes to the conversion of a physiological into a pathological spermatorrhœa."

SYMPTOMS OF SPERMATORRHŒA.

Nocturnal emissions, or wet dreams, are usually the first and most constant symptom attending

spermatorrhœa. As we have just remarked, these alone are not a proof of disease ; yet, when they occur with sufficient frequency to cause debility, and are followed by a feeling of weakness and depression, they constitute a diseased condition.

And here the patient must not be deceived. Persons of certain temperaments and constitutions will be more exhausted by having emissions of semen twice a month than others would by having them twice a week ; so that the frequency of the emissions alone cannot be taken as a guide. We fully agree with Dr. Acton, that "it would be better if emissions never occurred at all ; and we feel convinced that one who has never allowed himself to dwell on sexual thoughts, but takes vigorous bodily exercise, and lives abstemiously, will either have no emissions of semen, or they will occur only very occasionally."

These emissions at first occur usually in connection with dreams. The person has a lascivious dream, which causes an erection of the penis, and he awakens in the midst of a sexual orgasm, and finds his linen stained with semen. After the emissions have continued for a long time, however, they may occur without any orgasm, or even without the knowledge of the patient ; and he is only made aware of the fact by finding the stain upon

his clothes when he awakens in the morning. More than one emission may occur in the same night, though this is not common. If an emission occurs one night, there seems, in many cases, to be a tendency for it to be followed by another the next night ; after which several nights will elapse before it again occurs.

Diurnal emissions are less frequent than nocturnal emissions, though they occur in some severe cases of spermatorrhœa. They are usually produced by sexual excitement, or they occur during the evacuation of the bowels or the passage of the urine.

Here, as in the case of nocturnal emissions, we need to discriminate carefully between a healthy and diseased condition of the generative organs. Almost any person whose passions have been strongly excited, will find a drop or two of a creamy substance oozing from the water-passage. So, also, in straining at stool, or in voiding the urine, the pressure of the muscles may cause a secretion to escape. In the case of constipation of the bowels, the hardened fæcal matter may press upon the seed-bags and prostate gland, and thus force out a little of their contents. In the majority of these cases the secretion will be simply prostatic fluid ; but even if it should be found to contain

semen and spermatozoa, it is no sign of impotence, or even of disease, but rather of health and vigor. If, however, the emissions should be very profuse—say a teaspoonful—and should occur frequently, and with very slight provocation, they will indicate a diseased condition.

Diurnal emissions, produced by sexual excitement, may at first be accompanied by a pleasurable feeling; but in the later stages of the affection this all passes away, and there is only a feeling of exhaustion. The emissions also occur much easier as the disease advances, so that, after a time, the least indulgence of lascivious thoughts, or the simple friction of the clothing, is sufficient to cause an escape of semen.

In some rare instances the outlet of the seed-bags becomes relaxed, and the semen flows away almost constantly, either passing from the penis, or, more frequently, passing back into the bladder, and escaping with the urine. We need, in this class of cases, to be very careful, and not be deceived; for many times other discharges are mistaken for semen. A sediment in the urine is no indication that it contains semen. In ninety-nine cases out of one hundred the sediment will be due to an excess of phosphates in the urine, or to mucus from the membrane lining the bladder or urethra. The only test

for semen is an examination of the urine with chemicals and with the microscope ; and this, even, is only to be relied upon when conducted by a physician of character as well as ability ; for, as we have before intimated, there are many so-called physicians who are ever ready to impose upon and deceive those who apply to them for the treatment of these difficulties.

It is possible even to find semen in the urine and not have it an indication of disease. Some of the natural causes which we have already mentioned may produce an emission of semen, a drop or two of which remains in the water-passage and becomes mixed with the urine at the next evacuation of the bladder. Care must be taken, therefore, not to test the urine voided after any form of sexual excitement. When this precaution is taken, semen in the urine will be found to be a very rare complaint.

The CONSTITUTIONAL EFFECTS of spermatorrhœa are in many respects identical with those we have already described as produced by masturbation. Both conditions result in part from the loss of seminal fluid, and in part from nervous excitement, and they are attended with nearly the same mental and physical derangements.

The debility of the generative organs is likely to be even greater from spermatorrhœa than from

masturbation, and the emissions of semen are more likely to take place without any pleasurable sensation, and without even the knowledge of the patient.

In this condition of debility the loss of semen is much more injurious to the health, than when accompanied by the natural orgasm. Says Acton: "It is a well-ascertained fact that erotic dreams attended with pleasure leave less weakness than where the emissions occur without the knowledge of the dreamer. Explain this as we may, the fact is undoubted; but it is no more to be wondered at than that persons will undergo great exertions and perform extraordinary feats when inspired by hope and confident of success. We may say such results depend upon nervous influence—others call it courage. It is said that persons so situated have a good tone of the system—that reaction takes place readily. Doubtless the brain or spinal cord has a great influence on the results we are describing, as well as in supporting the loss of semen, which some constitutions have the power of renewing much more readily than others."

Lallemand mentions the diminution of pleasure during the act as one of the early symptoms of spermatorrhœa, occurring even before the general health has become deranged.

"At the same time that the sensation becomes

weakened, erections are less complete and prolonged; ejaculation is more rapid; it becomes, in fact, so precipitate that intromission cannot take place. The act, in regard to its duration, is almost reduced to nothing, and the same may be said of the other phenomena; it consists of a simple *excretion of semen*: we should, moreover, add, that the seminal liquor is little abundant, watery, transparent, without smell, and incapable of fecundation."

Describing the later and more severe effects of the disease, the same author says:

"Little by little, the phenomena of excitement which precede the orgasm diminish, and at last completely disappear; the emission then occurs without dreams, without erection, without pleasure, and even without any particular sensation; in fact, the patients are not aware that emission has taken place, except by the stains which they observe on the linen when they awake. At the same time the seminal fluid loses by degrees its consistence, its color, its smell, and resembles most closely mucus, or prostatic fluid."

Loss of memory is also a very common result attending spermatorrhœa. Patients will state that as the emissions increase in frequency and their general health becomes impaired, they become more

- forgetful and heedless. Every effort to impress passing events upon the mind fails; they forget names, dates, circumstances, and even the faces of those with whom they have been familiar, and this at an age when their minds should be most active and vigorous.

Epilepsy, *insanity*, and *idiocy* are occasionally produced by spermatorrhœa, and in nearly all cases there is great mental despondency and depression of spirits. Often the most difficult part of the physician's task is to inspire his patient with confidence, and to awaken in him sufficient desire for recovery to induce him to put forth the necessary effort. The mental condition produced by spermatorrhœa is so nearly identical with that which we have already described as resulting from masturbation, that, instead of repeating the symptoms, we would refer the reader to the description already given in the previous chapter.

TREATMENT.

Our first inquiry in treating spermatorrhœa should be to ascertain its cause. If produced by masturbation, the practice must be abandoned, or all further remedies will be in vain. If the patient has hitherto found his will too weak to overcome

the habit, we may encourage him with the assurance that the treatment to be employed will assist him in his effort ; but he must distinctly understand that he has his own part to perform, which no one else can accomplish for him. If the disease is due to excessive sexual indulgence, or to any of the other causes which we have mentioned, these should as far as possible be removed.

The object of treatment should be to stop the waste of semen, and to repair the injury to the system already done. After emissions have occurred for a time, they become a habit of the body, and have a tendency to recur at stated intervals. In this respect they resemble the desire for food and sleep, or for the evacuation of the bowels, except that the one is a healthy, and the other a diseased action of the system. It becomes necessary, therefore, to break up this unnatural habit, and to restore the normal functions of the generative organs. This is to be accomplished, partly by the use of hygienic means which the patient can himself apply, and partly by the use of constitutional and local remedies.

HYGIENIC TREATMENT.

As nocturnal emissions are the most frequent form in which spermatorrhœa manifests itself, so

this is the symptom which most frequently requires treatment. Patients will find, by carefully observing themselves, that erections and emissions are most likely to occur when the bladder is distended with urine. Care should therefore be taken to void the urine just before retiring, and at any time during the night when they may be awake and feel any desire to make water. It is also desirable that little or no fluid or fruit should be taken after four or five o'clock in the afternoon.

Persons who are troubled with emissions should avoid sleeping on the back, as it heats the spinal cord, and thus aggravates the disease. If they find that they turn upon the back while asleep, and cannot break off the habit by the force of the will alone, then some mechanical contrivance should be employed. Perhaps the simplest and most efficient means for this purpose is that recommended by Acton, of tying a knot in a towel, and fastening it around the body with the knot against the spine, so that it shall awaken the patient if he turns over on his back.

A mattress made of hair, sponge, husks, or straw, should always be preferred to a feather bed, as it is much cooler and healthier. No more bedding should be used than just enough to secure comfortable warmth.

Emissions are more common toward morning than in the earlier part of the night, and occur more frequently in an extra morning nap than during the earlier and deeper slumber. For this reason it is often advantageous for the patient to rise as soon as he wakens in the morning. If this deprives him of needed sleep, he may either retire earlier at night, or take an extra nap during the day.

It is sometimes recommended to bathe the generative organs in cold water just before retiring; but this is a mistake; for, as is well known, the use of cold water causes a reaction, and the parts are much warmer than natural for some time following. Thus persons wash their hands and feet in cold water before taking a ride on a cold winter's day, and find it of great service in keeping warm. The unnatural warmth which a cold bath induces in the generative organs has the effect of producing, instead of preventing, emissions. It is desirable that the generative organs should be bathed once or twice each day; but it is better to select some other time than just before retiring, or else to use warm water instead of cold. The frequent use of the sponge-bath, as recommended for masturbation, is also very useful.

The diet should be plain and nourishing; but, unless considerable debility of the system exists,

the amount of meat should be very limited. The use of alcoholic stimulants and tobacco, in every form, should be entirely avoided; and tea and coffee, if used at all, should be very weak. It is better that the only fluids taken should be water and milk; though, if warm drinks are desired at meals, weak tea, crust coffee, or warm water trimmed with milk and sugar, may be employed.

The exercise should be abundant and healthful. We have already mentioned (pages 109 and 177) the great importance of exercise in lessening the formation of semen, as well as in giving tone and vigor to the whole body; and need here only add that it is no less important in curing spermatorrhœa, than in maintaining continence and overcoming the habit of masturbation.

In addition to these special directions, the patient's own will can exercise great influence in effecting a cure. The emissions are usually associated with and occur during lascivious thoughts or dreams. If a person, by a rigid exercise of his will, and by close attention to some active business, can exclude all sexual thoughts from his mind, it will do more to cure him than all other remedies. Patients usually claim that they have no control of their dreams; but this is true only to a limited extent. There is a close connection between the thoughts

of the day and the dreams of the night. We fully agree with Dr. Acton that "the character is the same, sleeping or waking. It is not surprising that, if a man has allowed his thoughts during the day to rest upon libidinous subjects, he should find his mind at night full of lascivious dreams. The one is a consequence of the other, and the nocturnal pollution is a natural consequence, particularly when diurnal indulgence has produced an irritability of the generative organs. A will which in our waking hours we have not exercised in repressing sexual desires, will not, when we fall asleep, preserve us from carrying the sleeping echo of our waking thoughts farther than we dared to do in the daytime."

Many persons think they have not the strength of will necessary to govern their thoughts either waking or sleeping. They have so long allowed their minds and imaginations to revel in lasciviousness, that they think themselves almost powerless to prevent it. It will require time and patience to regain mastery of their thoughts ; but if they are in earnest to be cured, they will accomplish it. They must not think to free themselves from lascivious thoughts by supplying their place with a blank ; but they must engage with zeal and earnestness in pursuits which will keep their minds occupied with

other matters. Especially must they avoid exciting literature, and the society of men or women of doubtful virtue. In some instances it is desirable to forego for a time all ladies' society; but usually, association with ladies of refinement and virtue is not only allowable but beneficial.

Diurnal emissions will require substantially the same hygienic treatment that we have described for nocturnal emissions, but it must usually be continued for a longer time; for, as Lallemand remarks, "Diurnal pollutions are (other things being equal) much more difficult to cure than nocturnal emissions; and seminal emissions which attend the simple passage of the urine are more serious and more obstinate than those which take place during the effort of straining in defecation. In a word, experience proves that the severity of spermatorrhœa is proportioned to the ease with which it takes place, and common sense would predict such a result."

This form of spermatorrhœa is very frequently dependent upon some local difficulty like constipation, stricture of the urethra, varicocele, etc. When any of these causes exist, they should of course receive appropriate treatment.

INTERNAL REMEDIES.

The selection and prescription of the medicine to be employed in treating this disease, should usually be left to the physician; for there is such a diversity in its causes and manifestations, that the treatment will need to be greatly varied in different cases. There are, however, some suggestions which we can make, that will be of service both to the physician and patient.

It should be borne in mind that we wish not only to arrest the emission of semen, but also to restore the general health. It is possible to so reduce a person by a low diet and depressing medicines, as to arrest the formation of semen; but this practice, although it may stop the waste of semen, will not cure the patient. Instead of adopting this course, we should strive to keep up the full tone of the general health. If this is not accomplished by the diet and exercise already described, tonics should be employed. A very good recipe for this purpose is the following:

Tincture of Iron,	-	-	-	$\frac{1}{2}$ ounce.
Sulphate of Quinine,	-	-	-	$\frac{1}{2}$ drachm.
Dilute Phosphoric Acid,	-	-	-	3 ounces.
Sulphate of Strychnine,	-	-	-	1 grain.
Simple Syrup,	-	-	-	5 ounces.

Take one teaspoonful in a little water three times each day after each eating.

When the emissions occur at night from lascivious dreams, the following pill will be found useful:

Lupulin,	-	-	-	-	1 scruple.
Pulverized Camphor,	-	-	-	-	10 grains.
Extract of Belladonna,	-	-	-	-	2 grains.

Make into twenty pills. Take one or two each night before retiring.

A still better remedy in our hands has been the use of the bromide of sodium. It may be prepared after the following formula:

Bromide of Sodium,	-	-	-	1 ounce.
Cinnamon Water,	-	-	-	8 ounces.

Take from one to two teaspoonfuls each night before retiring. This remedy acts by lessening sexual desires, and by causing a quiet, refreshing sleep without dreams. Unlike the use of opium and most other sedatives, it may be taken without causing a bad feeling the next day, or without in any respect impairing the general health.

In the case of diurnal emissions the same internal remedies will occasionally be applicable; but usually the emissions occur, not so much from excessive sexual desires, as from weakness and disease of the

generative organs with diminished sexual desires. In these cases the use of phosphorus, electricity, and cantharides is often beneficial. The manner of using these remedies will be given in the chapter on impotence.

LOCAL TREATMENT.

In many of the milder forms of spermatorrhœa, the directions we have already given will be all that is needed to effect a cure. In other cases, however, the emissions are kept up, as we have already seen, by a congested and irritable condition of the water-passage and prostate gland, and it is necessary to remove this before we can hope to arrest the disease. This can be best accomplished by the use of local remedies applied directly to the seat of the irritation.

Professor Lallemand, who was the first to introduce this mode of treatment, invented an instrument called Lallemand's *Porte Caustique*, by which solid nitrate of silver was introduced into the penis almost to the neck of the bladder, and applied to the sensitive parts of the water-passage. This treatment, although a severe operation, was often followed by great benefit. Lallemand even claimed that "two-thirds of the cases of spermatorrhœa would be beyond the resources of our art, were it

not for the assistance we derive from this powerful medication."

Subsequent experience has shown that the claims for this treatment are very much too strong; yet the profession are greatly indebted to Prof. Lallemand, for his instrument was a step in the right direction. It showed that the emissions were often kept up by a local disease, and that when this was removed, the emissions would cease. It is, however, found that milder injections will answer just as well as the powerful caustic, besides being entirely free from the pain and the occasional danger which accompanies the use of the caustic.

In order to apply the injection to advantage, a syringe must be used with a long point, so as to carry the fluid the entire length of the water-passage to the neck of the bladder, which is the part most frequently affected. To accomplish this, we have had manufactured the instrument shown in the accompanying plate. It is made of hard rubber, so that it will not corrode, and is not easily broken. The point terminates in an almond-shaped bulb, just behind which are several little openings for the escape of



DR. WARNER'S URETHRAL SYRINGE.

the fluid. With this instrument the medicine can be carried to the neck of the bladder, while the closed bulb at the point will prevent it from entering the bladder.

The mode of introducing this instrument is as follows: First smear the point with sweet-oil. Then taking the head of the penis between the thumb and fingers of the left hand, introduce the instrument with the right hand. At first the instrument should be held close to and nearly parallel with the body, but as the point approaches the bladder, it may be gradually raised so as to be nearly at right angles with the body. No force should at any time be used, but the instrument should be allowed very gradually to find its way along the water-passage. The best position while introducing it, is either to lie flat on the back, or to stand against some solid substance. The first introduction of the instrument occasionally gives rise to a feeling of faintness, but this soon passes away, and rarely occurs after it has been used once or twice.

It is not desirable to pass the instrument into the bladder, but only to the neck of the bladder. Should the point pass into the bladder, it ought to be withdrawn before the injection is used. Many times a tender spot will be felt before reaching the bladder, in which case it is only neces-

sary to introduce the bulb beyond this place. By passing the fingers of the left hand behind the scrotum the point of the instrument can be felt on the outside, and thus the patient can determine how far it has been introduced.

The kind of injections to be used will vary in different cases, and must usually be decided by the physician. In some cases a weak solution of nitrate of silver may be used (four or six grains to one ounce of water), but we have rarely had occasion to resort to the use of this drug. In most cases of spermatorrhœa we employ one of the following formulæ:

Tannic Acid, - - - - - 1 drachm.

Glycerine, - - - - - 1½ ounces.

Mix with heat, and strain.

Pinus Canadensis, - - - - - 1 drachm.

Glycerine, - - - - - 1 ounce.

Water, - - - - - 1 ounce.

Mix.

Pulverized Alum, - - - - - ½ ounce.

Sulphate of Zinc, - - - - - 1 drachm.

Sulphate of Morphine, - - - - - 6 grains.

Water, - - - - - 8 ounces.

Mix.

Either of these injections may be used with the

instrument once in from three to six days, according to the severity of the symptoms.

Astringent ointments may also be employed with the same instrument, by smearing the point with the ointment desired. An excellent ointment for this purpose is made by mixing one drachm of persulphate of iron with one ounce of simple cerate.

In cases of simple irritation of the water-passage, the introduction of the instrument without any medicine is highly beneficial, and sometimes it is sufficient to effect a cure. Many times we recommend our patients to use the instrument alone once or twice between the applications of the medicine. The best time for using the instrument is at night before retiring.

Patients must not expect to be cured by local treatment alone, while they take no care of themselves, and continue on in the excesses which produced their disease; but if they will abandon every injurious habit, follow faithfully the directions we have given, and endeavor by every means to assist the physician in the remedies he shall employ, they may expect to regain their health. The authors have had extensive experience in treating this disease, and they speak advisedly in saying that, so long as the reason remains unaffected, there is rarely any difficulty in effecting a cure. A few cases may

baffle the physician's skill, and go on from bad to worse; but in almost every instance it will be those who cannot be roused from their lethargy and induced to co-operate in the efforts for their recovery.

CHAPTER X.

IMPOTENCE.

IMPOTENCE, in the strict sense of the term, means inability in either man or woman to have sexual connection; while sterility means a lack of power to reproduce the species. From this definition it will be seen that sterility may exist without impotence, though an impotent person is necessarily sterile. It is customary, however, to limit the term impotence to men, and the term sterility to women. We shall conform to this usage; and shall also, for convenience of description, embrace under impotence all those morbid conditions in man which prevent him from reproducing his species. This definition will include not only those cases where marriage cannot be consummated, but also many cases where sexual connection is possible, but where impregnation cannot take place.

Impotence may be temporary, when it is sometimes called false impotence, or it may be permanent, when it is called true impotence. In false

impotence the sexual organs are perfect in their natural development, and more or less sexual power is present, but not sufficient to enable the reproductive organs to discharge their functions. This condition may exist either in the married or unmarried, and is often the cause of great mental suffering. It is, in fact, a much more *distressing* complaint than true impotence ; for where there is complete absence of sexual power, there is no desire for sexual gratification, and the person goes through life a contented man, evincing no love for or aversion toward the opposite sex.

Permanent loss of sexual power, or true impotence, is much less frequent than false impotence. The power of reproduction is among the most deeply planted of any of the functions of our nature, and, unless weakened by advanced age, it is rarely yielded up without great provocation. This condition is thus described by Lallemand : " True impotence consists in want of power in connection, not once, but habitually ; not only with courtesans, but with those whom we most love ; not under unfavorable circumstances, but during long periods of time, say five, fifteen, or twenty years, when married to lovely and handsome women, whose devotion to their husbands has never been questioned."

The loss of sexual power affects not only the

special function of generation, but the whole body. We have already shown (Chapter V.) the influence which the generative organs exert upon the development of the body, and in giving to man his strength, courage, and manliness. We accordingly find that when these are deficient in any respect, the whole body and mind suffer. It is often the physical debility, the lack of manly ambition, and the mental lethargy, more than the sexual incapacity, which impels the impotent man to seek medical advice.

CAUSES OF IMPOTENCE.

Impotence may be brought on by disease, or by exhaustion and abuse of the sexual functions; or it may exist from childhood, owing to some imperfection in the natural development of the generative organs. As a thorough knowledge of these causes is necessary to the successful understanding or treatment of impotence, we shall consider some of the more important of them somewhat at length.

Masturbation.—There is no abuse of the generative organs which is likely to be carried to greater excess than masturbation, and none which has a stronger tendency to pervert and weaken the sexual functions. The man who practises masturbation extensively, frequently loses the desire as well as the

power of natural gratification, so that he deliberately chooses the pleasures of his own solitary indulgence. This condition is thus graphically described by Lallemand: " Their solitary vice has a tendency to separate those practising it from women. At first, of course, it is on the sex that their thoughts dwell, and they embellish an ideal being with all the charms of imaginary perfection ; the habit, however, which enslaves them little by little, changes and depraves the nature of their ideas, and at last leaves nothing but indifference for the very reality of which the image has been so constantly evoked to aid their criminal indulgence. At a later period, when erection is only temporary and is too incomplete for them to think of sexual intercourse, they abandon themselves with fury to their fatal habit, notwithstanding the almost complete flaccidity in which the erectile tissues are left. At this period the handsomest woman only inspires these patients with repugnance and disgust ; and they ultimately acquire an instinctive aversion, a real hatred for the sex. They dare not always let their feelings on this subject escape them, from fear of their shameful vice being suspected, or the humiliating condition to which they are reduced being discovered ; but they lose no opportunity of, as it were, revenging themselves for the repugnance

which they believe they produce in women, and which, in truth, they do inspire, in consequence of the instinctive reciprocity of such feelings that is inevitable."

But even when sexual gratification is desired or attempted, the sexual organs may have become so debilitated by abuse as to render it impossible. Many such cases have come under our notice, where the confirmed masturbator has in shame confessed to us his inability to perform the sexual act. In some instances, by the bad advice of friends, they have sought the society of women in the hopes of curing themselves of their vile practice, and, attempting connection, they have failed, when they have returned in disgrace and shame to the low gratification of their secret habit.

Excessive Sexual Indulgence.—This is not as frequent a cause of the loss of sexual power as masturbation, and yet cases of impotence from this source are by no means rare. It is much less likely to produce this effect in married men who are faithful to their marriage vows, than in the libertine and debauchee; for the lawful indulgence of man and wife is less likely to be carried to excess, or to be rendered injurious by unnatural devices for intensifying the passions. The impotence which is thus produced is usually only temporary, though in some

cases, especially in those who are advanced in years, it may be permanent.

Close Application.--We have already, in a previous chapter (page 109), recommended severe physical and mental labor as a remedy for excessive sexual desires. We may here add that labor may be carried to such an extent as, for the time being, to suppress the sexual instincts. This occasionally occurs in college students, and in literary men who are especially absorbed in some literary work: more rarely, it may also occur in those engaged in severe physical labor. Any man may observe, by taking notice, that, during the weeks that he is most absorbed in business, his sexual desires are much milder than during his weeks of comparative idleness. "Men who gain their bread by the sweat of their brows, or the exhausting labor of their brains, should know full well that they cannot hope to be always in a fit state to perform the sexual act. During certain periods, when occupied with other matters, the thoughts can dwell but little on sexual subjects, and no disposition exists to indulge anything but the favorite and absorbing pursuit, mental or physical, as the case may be. After a lapse of time, different in various individuals, sexual thoughts arise again, and the man who yesterday was so indifferent to sexual feelings, as

practically to be temporarily impotent, now becomes ardent and sexually disposed, remaining so until the necessary, and, in fact, healthy lethargy of the organs follows the performance of the act.”*

Some have suggested that the reason great men so rarely transmit their genius to their children is, that their minds are so absorbed by labor that the reproductive functions are not in that state of vigor necessary to produce the highest qualifications in their offspring.

Impotence which is produced by labor is in no case more than temporary, and it only requires a few days or weeks of change of scene and labor to completely restore the sexual functions.

Lethargy.—There are some men in whom the sexual passions are naturally much more strongly developed than in others. Some seem indifferent to all physical pleasures. They eat and drink with little or no relish for what they take, but simply to avoid hunger and thirst. So, also, the sexual passions appear to lie dormant unless they are roused by a special effort.

This condition does not in itself constitute impotence; but a man of this temperament is much more likely to become impotent under unfavorable

* Acton.

circumstances. If he is married to a woman of low sexual feeling, or, still more, to a woman toward whom he has a positive aversion, he will have little or no sexual power.

This is the class, also, who are most likely to lose their power by application to other pursuits. The sexual instincts occupy at all times only a subordinate position, and never assume any of that mastery over the other faculties which make so many men the slaves of their passions.

Nervous Debility.—The sexual organs are in close sympathy with the other organs of the body, so that when a person suffers from any form of disease which reduces the vital powers, the sexual activity for the time being is suspended. This is a wise provision in our economy, for the use of the generative functions at such a time would be highly detrimental to life and health.

Many times, connection is rendered impossible by excessive nervousness, when in reality the sexual powers are but little if at all diminished. This is especially the case with those who have formerly abused themselves, and are conscience-stricken over their past offences. We have occasionally known young men who were in the enjoyment of good health, to meditate and study upon their sexual functions until they became monomaniacs

upon the subject ; and dared not enter the marriage relation for fear of finding themselves impotent. The following description of this class of cases is by a distinguished medical writer, and is not in the least overdrawn.

“ If the patient is occasionally subject to nocturnal emissions, or if he passes some slightly tenacious fluid upon going to the water-closet or after passing water, he imagines that these are the signs of impotence, and he further errs in thinking that his happiness is marred—that he is incapable of marriage. If, unfortunately, he has been guilty, as a boy, of self-abuse, the conviction comes home to him that he deserves all this personal chastisement now heaped upon him ; and with all the self-sacrifice of the youth, he deems himself unworthy to have a wife, and proposes breaking off the engagement, declaring that whatever his own sufferings may be, he will never sacrifice those of the woman he had selected to be his partner.

“ It is well if such a man in this despondent mood consults a competent and judicious medical man. In too many instances, pride, or his stricken conscience, or ignorance, or the fear of intrusting his secret to any human ear, brings about a state of mental and bodily prostration that must be seen to be appreciated. None but those who have

witnessed the condition of the sufferer can form any idea of the hell upon earth which these conscience-stricken patients carve out for themselves. It is such sufferers as these that furnish funds for the advertising firms who fill the pages of some of our journals with their trashy advertisements. These harpies fatten on the ignorance and prejudices of such patients, humor their fears, increasing and exaggerating the supposed consequences, and only turn them adrift when they have emptied their pockets."

For the assurance of this class we will say that the truly impotent man is usually indifferent about his condition. We may lay it down as a rule that those who are so greatly alarmed about their sexual condition are not impotent, and are in little danger of becoming so.

Alcohol, Tobacco, etc.—It may surprise the reader to see alcohol and tobacco mentioned as causes of impotence; but in this opinion we are abundantly sustained by the highest medical authority. It is true that moderate drinking tends to inflame the sexual desires, but it does not strengthen the sexual powers; and in the confirmed drunkard both the desire and the ability are greatly weakened.

The use of tobacco in all cases is directly weakening to the sexual powers. "I am quite certain,"

says Dr. Acton, "that excessive smokers, if very young, never acquire, and if older, rapidly lose any keen desire for connection." It is believed by many leading physicians that the prevailing excess in the use of tobacco in our country, exercises a marked influence not only upon the sexual powers of husbands and fathers, but upon the health, vigor, and constitution of the offspring. The following remarks by a distinguished physician of London are but too well confirmed by the experience of every closely observing medical man :

"The tobacco smoker, especially if he commences the habit early in life, and carries it to excess, loses his procreative powers. If he marry, he deceives his wife, and disposes her to infidelity, and exposes himself to ignominy and scorn. If, however, he should have offspring, they generally either are cut off in infancy, or never reach the period of puberty. His wife is often incapable of having a living child, or she suffers repeated miscarriages, owing to the impotence of her husband. If he have children, they are generally stunted in growth or deformed in shape—are incapable of struggling through the diseases incidental to childhood, and die prematurely. And thus the vices of the parent are visited upon the children, even before they reach the second or third generation.

“ I have constantly observed that the children of habitual smokers are, with very few exceptions, imperfectly developed in form and size, very ill or plain-looking, and delicate in constitution. These imperfections are most manifest in the female offspring, for the procreative inability being chiefly in the husband, and less in the wife, unless from disgust at his habits, and the female generally deriving the chief characteristics of form, feature, and constitution from the male parent, the female child is more or less the victim of his vices and debased habits.”

The use of opium, and the excessive use of tea and coffee, are also opposed to the fullest sexual development. These causes alone will rarely be sufficient to produce impotence, unless carried to very great excess ; but operating with the other causes we have mentioned, they contribute to that end.

Corpulence.—The excessive secretion of fat interferes with the full exercise of all the functions of the body, but especially with the functions of reproduction. Says Dr. Carpenter, in his work on Comparative Physiology, “ It must be observed that there is a certain degree of antagonism between the nutritive and the generative functions, the one set being exercised at the expense of the other. The generative apparatus derives the materials of its operations through the nutritive system, and

is entirely dependent upon it for the continuance of its activity. If, therefore, the generative activity be excessive, it will necessarily draw off some portion of the aliment destined for the maintenance of the fabric at large. It may be universally observed that where the nutritive functions are particularly active in supporting the individual, the reproductive system is in a corresponding degree undeveloped, and *vice versa*."

Instances of temporary and in some cases permanent impotence from this cause are by no means infrequent. This principle is well understood in its application to the lower animals. No stallion or bull is considered to be in condition for breeding when very fleshy.

The remedy in such cases should be to diminish the weight, which may be done by restricting the diet in accordance with the Banting system; or by following the prescription of the excellent but eccentric physician, Dr. Abernethy, to "live on a shilling a day, and earn it."

Physical Imperfections.—A somewhat frequent cause of impotence is the non-descent of the testicles. We have already remarked (Chapter III.) that the testicles are first formed in the abdomen, and usually descend into the scrotum a short time before birth. Sometimes the testicles remain permanently

in the abdomen, in which case the person seldom possesses his full sexual power. There is sometimes power enough to allow the consummation of marriage, and very rarely the man may have a family ; but usually the semen is too imperfectly formed to produce impregnation. When one testicle descends to the scrotum, the chances of virility are of course much better than when both remain in the abdomen. Impotence from this cause is nearly always permanent.

Sometimes the outlet of the penis, instead of being at the end, is upon one side. This does not prevent connection, but it usually prevents impregnation, as the seminal fluid cannot reach the womb where it can meet the egg furnished by the female. So also impregnation is occasionally prevented by an obstruction or stricture of the water-passage, which prevents the escape of the semen from the penis. The presence of disease of the testicles, hernia, and the wearing of a truss may also so interfere with the secretion of the semen as to produce sterility, and sometimes impotence.

These cases can in most instances be remedied, either, by the skill of the surgeon in removing the obstacles, or by the expedients which science has devised for overcoming them.

Veneral Diseases.—These may produce impo-

tence either by the local effects which they produce upon the generative organs, or, in the case of syphilis, by their constitutional effects upon the system. As this subject has been fully treated of in another place, we will not enlarge upon it here.

Age.—The virile powers, as we have already remarked, extend only over a part of the human life. As the decrepitude of age begins to appear, the sexual desires gradually become less, until they finally cease altogether, and man enters upon his second childhood. The age at which this change occurs is liable to great variation, and will depend much upon the natural vigor and constitution of the man, and much upon the moderation with which he has indulged in sexual pleasures. It rarely occurs in a healthy man sooner than fifty, and in the majority of cases it is prolonged to a still later time.

“It is usually at the age of fifty or sixty,” says Dr. Parise, an eminent French physician, “that the generative functions become weakened. It is at this period that *man*, elevated to the sacred character of paternity, and proud of his virile power, begins to mark that power decrease, and does so almost with a feeling of indignation. The first step toward feebleness announces to him, unmistakably, that he is no longer the man he was. He may retard the effect up to a certain point, but not

entirely. This law must have its full and entire execution: '*Dura lex sed lex.*' The activity of the generative organs diminishes, their functions abate, languish, and then cease entirely. The wish and the want are no longer one and the same thing; the imagination does not exercise its olden power and fascination on these organs.

"Blood now only flows in small quantities toward the testes. Their sensibility becomes blunted, and is reduced to what is sufficient for the nutrition of the parts. The scrotum is observed to become wrinkled and diminished in size, the testicles atrophy, and the complicated vascular tissues which form them become obliterated; the semen, that peculiar secretion of the blood, is not only less abundant, but has lost its consistence and its force. The animalculæ, or zoosperms, which constitute its nature or its essence, far from being as numerous or active as formerly, are, on the contrary, few and languid."

In occasional instances virility lasts to a much later period. Sallust, the historian, relates the case of Masinissa, king of Numidia, who married at the age of eighty-five, and afterward was father to a healthy infant. Other instances still more remarkable show that in man the reproductive functions often continue, though with diminished vigor, to very advanced age.

When impotence occurs in persons past the age of fifty, as a rule, little can be done to restore the virile powers. It is the warning of nature that the time of sexual activity is past, and that repose of the sexual organs is needed. Even if it is possible to stimulate them again to activity, their use under such circumstances would be attended with great danger. Cicero, when asked if he still indulged in the pleasures of love, replied, "Heaven forbid! I have forsworn it, as I would a savage and furious taskmaster."

"Would you," says Parise, "know the difference between love in youth and in old men? It is this: 'Of a truth, *great folly appertaineth to the first love, but great feebleness to the last.*' Hereby hangs a tale, for sudden danger lies in the path, and the siren sings upon the very verge. Blessed should the ancient deem himself who can put up with calmness, happiness, and reason, instead of craving after those senile accessions of delirium too often the parents of regret and remorse without end. The chastisement of those who love the sex too much, is to love too long. Is nature silent? 'Tis that she would not speak! Would you provoke or excite her? It is a crime against her—a crime for which she will some day claim a deep revenge. Why, then, not listen to the voice of wisdom?—for those

who sit at her feet, and listen to her awful counsels, shall be delivered from strong passion, and many sore straits and much folly.”

MEANS OF DETERMINING IMPOTENCE.

In the case of a married man, there is usually no difficulty in knowing whether he has the full possession of his virile powers or not. If he can have intercourse with his wife, and his generative organs are perfectly developed, we may generally conclude that his reproductive organs are perfect. If there is any doubt upon the subject, it may be removed by a microscopic examination of the seminal fluid.

But the more important question is, How can the single man know that he has the full possession of his reproductive powers? Many a young man who has abused himself by masturbation or suffered from spermatorrhœa, or who is afflicted with some of the derangements which we have given as causes of impotence, is deeply concerned to know whether it is proper for him to contract marriage. In general we may say that the presence of sexual desires and inclinations accompanied by the power of erection are presumptive grounds that the virile powers are perfect. In doubtful cases the opinion of a competent physician should be obtained.

We regret to say that there are those who recommend a young man to commit fornication to test his virile powers ; but this course is in all cases to be unqualifiedly condemned. Aside from the considerations of morality which should alone deter a man from the use of such means, the test is in no respect reliable. Many a man who might easily succeed in having connection with his lawfully wedded wife, whom he loves, would, under the stings of a guilty conscience, fail with a courtesan. As Dr. Acton justly remarks, "Such a test is not only fallacious, but is often most dangerous. What, for instance, is more probable than that a nervous man, who, for the first time, meets a loose woman, goes to a strange house, and is frightened by the disgrace which may attend any exposure of his folly, should find himself unable to consummate the act? The only greater misfortune that can befall him is to be dragged subsequently and consequently into the hands of quacks. If he does not end his days in a lunatic asylum he will be singularly fortunate."

PROBABILITIES OF CURE.

Impotence, when it is the result of age, of organic disease, or of malformation of the generative

organs, is generally incurable. So, also, when the difficulty is of long standing, and the nervous system has become seriously affected, the chances of recovery are very doubtful. In all other instances, if the patient will make an effort to recover, he may usually succeed.

Many times the hardest part of the physician's task is to rouse the patient from his lethargy, and inspire him with the confidence and energy necessary to the proper application of any successful treatment. "The loss of the virile power," says Lallemand, "produces an effect more overpowering than that of honors, fortune, friends, or relatives; even the loss of liberty is as nothing compared to this internal and continual torture. Those who suffer from injustice or misfortune can accuse their enemies, society, chance, etc., and invent or retain the consciousness of not having deserved their lot; they have, moreover, the consolation of being able to complain, and the certainty of sympathy. But the impotent man feels that he can make a confidant of no one, that he can expect sympathy from no one. His misery is of a sort which cannot even inspire pity, and his greatest anxiety is lest any should penetrate his dismal secret."

TREATMENT OF IMPOTENCE.

In describing the different causes of impotence, we have already alluded to some of the means applicable for its treatment. The special cause of the impotence should, so far as possible, be removed. If produced by masturbation, sexual excesses, tobacco, or alcohol, these indulgences must be abandoned, or all treatment will be useless. If it is due to spermatorrhœa, hernia, varicocele, or venereal diseases, these should receive appropriate treatment.

The care of the general health should also receive strict attention ; the diet should be nutritious and abundant, and should include a free supply of Graham bread, fresh meats, eggs, and fish, especially shell-fish ; the exercise should be sufficient to strengthen and invigorate the system, but not so severe as to produce exhaustion.

But, more important than all, the nervous system should have an opportunity to rest and recruit itself ; for in most cases it is a deficiency in the nervous system which prevents a restoration of the sexual power. All severe and annoying mental labor must be avoided ; the mind should be sufficiently employed to prevent the person from brooding over his trouble, but the mental work should be of a

kind that is agreeable and not fatiguing. The nervous system has been in some manner over-worked and exhausted, and it must be recruited, or rather it must be allowed to recruit itself by repose.

The hygienic directions which we have given are the first and most important means to be used in restoring the sexual power. They can always be employed with perfect safety; and in many mild cases no other treatment will be necessary.

There are, however, various medicinal agents which may be employed with advantage in these cases. These means should only be used, however, with intelligence and great care, as otherwise they will do more harm than good. They all act, to a greater or less extent, by stimulating the sexual powers. If the general health is good, and the sexual functions inactive and lethargic, then it may do them no harm to spur them into activity by stimulants; but if the reproductive powers are dormant from excessive use, exhaustion, or general debility, such a course would be highly dangerous.

When impotence is accompanied by marked debility, it is usually necessary to restore the general health before any special treatment is directed to the sexual organs. In addition to the hygienic means which we have already suggested, the following tonic may be taken with advantage:

Pyrophosphate of Iron,	-	3 drachms.
Sulphate of Quinine,	-	$\frac{1}{2}$ drachm.
Strychnine,	- - -	2 grains.
Acetic Acid,	- - -	$\frac{1}{2}$ drachm.
Syrup of Tolu,	- - -	2 ounces.
Simple Syrup,	- - -	8 ounces.

Dissolve the strychnine in the acetic acid, and then add the other ingredients, and mix with moderate heat. Take one teaspoonful in a wine-glassful of water before eating, three times each day.

The most valuable remedy for directly acting upon and restoring the sexual powers is phosphorus. This is an essential element of the nervous tissue, and appears to exercise a special influence in strengthening and restoring it. It is, however, a powerful remedy, and, when injudiciously used, is somewhat dangerous; so that it should never be employed except under the directions of a competent physician.

Some of the benefits of phosphorus may be obtained from the use of the food which is richest in this element; and it is for this reason that we have recommended the free use of shell-fish, eggs, Graham bread, etc. The following recipe, containing phosphoric acid, may be used by the patient

with safety, but it is less effective than phosphorus in the uncombined form :

Dilute Phosphoric Acid,	-	-	3 ounces.
Syrup of Ginger,	-	-	4 ounces.
Syrup of Bitter Orange,	-	-	4 ounces.

Take one teaspoonful in a wineglassful of water three times each day.

Electricity is also a very valuable agent in the treatment of impotence. It should never be employed when there is nervous debility or exhaustion of the reproductive organs, for in such cases it will greatly aggravate the symptoms ; but in cases of lethargy of the sexual functions it is of great benefit. A battery can be purchased for a small amount, and when a patient has once been instructed in its use he can carry out the treatment by himself. We cannot, however, recommend the employment of so powerful an agent unless it is recommended by a skillful physician. The manner of applying the electricity should also be fully pointed out, for the *proper* application of electricity in the treatment of disease is not so simple a matter as many suppose.

Cantharides is a medicine which was formerly much employed for impotence ; but it is a dangerous remedy, and only applicable to a limited num-

ber of cases ; and even then it is usually less valuable than the other means we have indicated. It should in no case be employed except as it is prescribed by a physician.

Marriage is a remedy sometimes advised for slight sexual derangements, resulting in partial or temporary impotence ; but it is a remedy which should be recommended with great caution. If there are low sexual desires from general lethargy of the system, or if a young man is nervous, timid, or fearful of impotence, but suffering from no sexual derangement except an occasional emission of semen, he may safely marry, expecting thereby to be cured of his difficulty ; for, as Lallemand well observes, "the regular exercise of organs will alone give all the energy of which they are susceptible, and those of generation are far from forming an exception to this general law."

In cases where there is any fear that the impotence may be permanent, marriage should not be thought of ; and in cases where complete impotence has been brought on by sexual abuse or excess, or by some disease of the generative organs, marriage should be deferred until the health is restored.

When any reasonable doubt exists as to a man's sexual ability, he should in all cases remain single. Besides the shame and remorse which he would

bring upon his own head, he would by this means involve his wife in his own disgrace. As the professor of Montpellier nobly observes :

“What has the young girl, who is thus sacrificed to an egotistical calculation, done, that she should be condemned to the existence that awaits her? Who has the right to regard her as a therapeutic agent, and to risk thus lightly her future prospects, her repose, and the happiness of the remainder of her life?

“Until a man has contracted these indissoluble bonds, impotence the most complete can compromise the future of no one.

“It is precisely because marriage is the most sacred bond for individuals, as well as the most important for society, and because an iron law renders it indissoluble, that it is rational as well as moral not to contract it without the certainty that it will be perfect and complete.”

It should, however, be remembered that the man who is truly impotent rarely has any great desire for marriage. Cases are much more frequent of young men who are abundantly competent to marry, but who have been so frightened about their condition by the false teachings of unprincipled men that they dare not marry.

To any young man who desires to marry, but

fears he cannot, from the effects of his former indiscretions, we would give this advice : Avoid all those men who, through papers, circulars, or books, advertise for the special treatment of this class of cases. They are, almost without exception, swindlers. If they robbed credulous young men of their money only, we might pass them by in silence ; but they do worse—they rob them of their health, of their peace of mind, and, in not a few cases, of their reason and intellect.

If your own family physician is a man of character (as he ought to be), consult him ; if not, consult some skillful physician of good moral character, who is in good standing in society and with the members of his own profession. State your case fully and candidly to him, and ask his counsel. If he recommends you to marry, you need have no hesitation in following his advice.

CHAPTER XI.

MARRIAGE.*

MARRIAGE is one of the oldest as it is also one of the most important ordinances of society. It is an institution appointed by God, and is therefore obligatory upon mankind. It is the natural state for all persons who have reached the age of maturity. The man who lives single goes through life with one-half of his nature undeveloped. The two sexes are the natural complements of each other, and it is only as they are brought together in the intimate relations of marriage that their full nature is unfolded. The strongest, purest, and holiest earthly love is that which the wife and husband feel for each other and for the children which have blessed their union.

No act in a man's life has a greater influence upon his future prospects than that of entering the marriage relation. It may be to him a source of

* Some portions of this and the following chapters are taken from the author's work on "The Functions and Diseases of Woman."

health, enjoyment, and long life, or it may be a source of sickness and premature decay. Says Parise: "In a happy marriage everything conduces to enjoyment, to well-being, health, and longevity, for life is passed without shocks and agitation; there is a kernel of felicity, around which are collected all the other possible pleasures, and which must soften the misfortunes whereunto humanity is predestined. In an unhappy marriage, when each person is a perpetual cross for the other, everything is anguish, torment, trouble, and disquietude; to-day, to-morrow, and always, at each moment the bitter cup, full to overflowing, approaches and touches the lips."

The formation of the marriage tie is usually determined by other than physiological reasons. It may not, however, be without profit to mention some of the considerations which should have an influence in assuming this important relation.

PROPER AGE FOR MARRIAGE.

The most suitable time for marriage is soon after the body has attained its full growth and development; which with men in this climate is between the ages of twenty-two and twenty-five. It does not follow because the organs of generation are

developed at the age of thirteen or fifteen that they should be brought into use at this time: at least four or six years should elapse before the system is fitted to discharge the important function of reproduction.

Very early marriages are not likely to be as well assorted as those formed later in life, when the judgment has become more matured. The selection of a life-companion is a matter of too much importance to be decided alone by the fiery heat of youthful passion; but considerations of health, of education, and of adaptation of temperament, mind, and disposition, should be taken into the account. In nearly all cases of elopement, where youths of tender age have forsaken the parental hearth, those who have married in haste have afterward repented at their leisure.

Besides, a young man ought to see before him some prospect of providing for a family, before he calls a wife to share his fortune. The demands of the present age are such that no young man can complete the necessary preparations for a successful career in life before the age of twenty-three or twenty-five; and until he is established in the business of his life-work, it is better for him to be unencumbered by marriage. Says Dr. Acton:

“No medical man, I hold, should ever recom-

mend the hardly-worked metropolitan population to marry *early*. Marriage is not the panacea of all earthly woes, or the sole correction of all early vices. It often interferes with work and success in life, and its only result is, that the poor man (poor in a pecuniary point of view) never reaches the bodily health or social happiness he might otherwise have reasonably expected. Under the age of twenty-five I have no scruple in enjoining perfect continence. The sighing, lackadaisical boy should be bidden to work, righteously and purely, and win his wife before he can hope to taste any of the happiness or benefits of married life."

There are no doubt many instances where marriage may be properly contracted at a somewhat younger age than we have indicated. Some young men mature much earlier than the average, and the business of some requires a much longer preparation than that of others. If a young man of twenty is engaged to a young lady of suitable age, and is already settled in business, or is able to maintain a wife, we believe it is advisable for him to marry at once; while in all cases, if the choice is between marriage and fornication, we say emphatically, *marry*.

This view of early marriages we find also sustained by Dr. Horatio R. Storer, in his popular

work entitled "Is it I?" "As to age, there can be no doubt that, for some reasons, it would be better for no man to marry before he has reached the age of twenty-five, and for no woman until she is twenty; for till this time neither party can be considered, physically, as really mature. To apply this rule, however, rigidly to practice, would, in this country, be very difficult. With us, such is the precocity of mental development, that the young child is often, in many things, the old man. Taken from the nursery almost before the first dentition has occurred, placed in business or upon the classics almost at the time of assuming the boy's garments, many of our merchants and manufacturers have achieved a fortune, and many of our professional men a reputation, by the time they have hardly passed their majority. Precocity of youth, spent under the stimulus of American atmosphere, climatic, intellectual, and moral, can but result in a certain kind of precocity of manhood."

Late marriages are liable to objections, though not as important as those which apply to early marriages. The period of sexual activity in man is not as strictly limited by a definite term of years as that of the menstrual period in woman; yet it is nevertheless true that the time of his special sexual vigor is between the ages of twenty-five and forty-

five. This is the time when the sexual propensities most crave gratification, and the time which is designed by nature for the procreation of the species. After this period the system is no longer able to withstand the effects of frequent sexual indulgence. The marriage is also less likely to be fruitful, and the children who are born are not usually as healthy and vigorous.

Late marriages are also rarely attended with so much harmony of feeling as those formed earlier in life; for the habits and opinions of the husband and wife have become fixed, so that they are not easily assimilated. "The marriage of very old people, permissible on Platonic or economical grounds, is sanitarily to be disapproved, and in many instances is but the folly of the second childhood.. Great disparities in age are almost always matches of interest rather than affection; the selfish greediness, the shameless, yet impotent lechery of old age joins itself well with that ambition, or thirst for wealth, which sells the young girl to her worse than slavery—this mating of youth to a virtual corpse." *

FITNESS FOR MARRIAGE.

An important, though not the only object of

* Storer.

marriage, is the reproduction of the species. By the laws of most countries, any imperfection in either husband or wife, which makes the consummation of marriage impossible, renders the marriage void. No man, therefore, should contemplate entering the marriage relation unless his sexual organs and powers are perfectly developed. It may usually be taken for granted that a man who has the power of erection will be able to have sexual connection. The large or small size of the male organ, or even the absence of one of the testicles, is not necessarily inconsistent with perfect virility.

Many young men who have abused the sexual organs, or who have suffered from spermatorrhœa, fear to marry lest they should be incompetent to discharge their duty as husbands. We have often known young men who were engaged to be married, to suffer in anticipation untold agonies of mind, fearing that by their incompetence they should disgrace themselves in the eyes of their bride. The views of the unmarried in regard to the requirements of married life are often vague and greatly exaggerated, and we would therefore say, for the assurance of such, that it is very rare for a man, whose general health is sufficient to render marriage advisable, to be unable to discharge his marital duties.

Cases of real impotence do occasionally exist, and of course, in such instances, marriage is not admissible ; but, as we have already remarked in a previous chapter, such persons rarely desire to marry. If you wish to marry, and a competent medical authority sanctions it, let no exaggerated ideas of the sexual duties required of you stand in your way, for you are perfectly safe in following his advice.

Persons suffering from any blood disease which endangers their own health, or which would be entailed upon their posterity, should abstain from marrying. We have already mentioned the terrible effects upon the family which are produced by syphilis. We believe that the man who contracts marriage with this disease still in his system, commits a great sin against his wife and against the children which may be born unto him.

Persons also who have pulmonary consumption, or who are strongly predisposed to this disease, should not marry ; for, besides greatly lessening their own chance of life, their children will be almost sure to find an early grave. Those also who suffer from attacks of insanity, or from epileptic fits which have continued since the age of puberty, should not assume the responsibilities of marriage.

CHOICE OF A WIFE.

Love is proverbially blind, and few men who contemplate marriage stop to reflect upon fitness or unfitness ; but so exalted is their fancy, so active their imagination, and so warped their judgment, that they see in their future bride only physical, mental, and moral perfection. The poet sings,

“O, wad some pow’r the giftie gie us
To see oursels as ithers see us !”

We have often thought that it might be a blessing if this gift were still further extended, so that the young man could see his lady-love with the eyes with which others behold her. Perhaps, however, it is wisest as it is ; for there might be fewer marriages, and consequently a slower increase of the human family, were it not for the infatuation which blinds the eyes of the lover to the faults of his chosen love.

There are, however, some plain physiological rules which every prudent young man should understand and consider in selecting a companion ; for otherwise the marriage will be likely to result in but little good either to the parties themselves or to society.

Age.—The wife should be at least eighteen years

old. To marry a wife younger than this, is to expose her to greatly increased risks in childbirth, and to endanger her health by calling the reproductive organs into use before the full development of the body. The children, also, of early marriages are not generally as well formed and healthy as those of later unions, and the mother is more likely to become the victim of uterine disease. A woman needs all the time until the age of eighteen or twenty to acquire the discipline and education necessary to assume successfully the responsibilities of married life.

It is desirable that the husband should be a few years older than the wife. Man is later in coming to maturity, and also retains his sexual powers considerably longer than woman; so that, for these functions to cease at about the same time, the wife must be younger than the husband. Dr. Acton recommends a difference of ten years; but this we think, as a rule, is too great, as it necessitates either very early marriage for the woman, or very late for the man. A difference of about five years is, we believe, the best, though, if other circumstances are favorable, a difference of ten, or even of fifteen years, is no serious objection. When there is a greater disparity than this, it is rare that the congeniality of tastes and dispositions

exists which is essential to a happy married life.

If both parties are young, they may with propriety be of nearly the same age; but for a man to marry a wife much older than himself, is an act so at variance both with physiological laws and social instincts, that it but rarely occurs.

Health.—More important than the consideration of age, is that of the health of the wife. No matter how amiable, refined, and intelligent a woman may be, she will rarely make a happy and prosperous home for her husband if she is habitually indisposed; besides, it should never be forgotten that offspring are the natural and expectant fruits of the marriage relation, and an invalid wife usually either has no family, or a family of puny, scrofulous, and sickly children. We would not, therefore, advise a man to marry a woman who had since the years of puberty been sick most of the time, or in whose family consumption, scrofula, insanity, or epilepsy prevails to any considerable extent.

Beauty.—While no person should marry for beauty alone, yet good looks are by no means to be so much despised as some would have us believe. Says Rev. Sidney Smith :

“How exquisitely absurd, to tell girls that

beauty is of no value, dress of no use! Beauty is of value: her whole prospects and happiness in life may often depend upon a new gown or a becoming bonnet; and if she has five grains of common sense, she will find this out. The great thing is to teach her the just value, and that there must be something better under the bonnet than a pretty face, for real happiness. But never sacrifice the truth."

A pretty skin and features are less important than intelligence, refinement, and culture; yet it will be found in more than a majority of cases, that beauty of character dwells within a fair exterior. The body is the temple of the soul, and a beautiful mind and character will so illuminate and shine through what would otherwise be a homely face, as to transform it into its own likeness, and make it pass for beautiful.

"We must all acknowledge that good looks are among the best passports in the world. Even children, the most unprejudiced witnesses possible, frankly admit that they like so and so, because she or he has a nice face. It is unwise to undervalue or pretend to undervalue the woman's comeliness of face and form. A woman with a good physique starts with advantages that other women cannot acquire. She is spared a thousand and one temptations—jealousy and other low feelings supposed to

haunt occasionally the female breast, with which her less favored sisters have to contend. Physical attractions, again, help to tide over many of those little domestic differences which will occur in married life. Man's sexual sense will be aroused by beauty when no other influence can touch him. It would be a curious inquiry, perhaps worth pursuing, whether, even among the lower classes, a comely-looking woman was ever ill-used by her husband, except when he was drunk. In a state of nature we find that animals select the most perfect forms for their mates—thus instinctively providing for the perpetuation of as perfect species as possible. It would be well in many respects if this example were more closely followed by human beings.” *

Other Requirements.—There can be no question but that those marriages are most likely to result in happiness, where the parties are of similar education and social position; where the tastes are sufficiently similar to enable them to take an interest in each other's pursuits, and yet sufficiently diverse to give variety to their conversation; where the characters and dispositions are so adjusted that each is the exact counterpart of the other, and furnishes the perfect ideal of manhood and womanhood. These are matters, however, that do not

* Acton.

properly come within the province of the physiological teacher, and we shall therefore pass them by without further mention.

SHALL PERSONS OF THE SAME TEMPERAMENT MARRY?

This question will usually be decided by the affections rather than by any advice that may be given. These, however, are not so blind a guide as many suppose. Most persons in forming attachments select those of a different temperament from themselves; thus, those who have blue eyes with light skin and hair will admire most the brunette; while those of a dark complexion will in their turn fancy the blonde. This rule is liable to many exceptions, but it will be found true in more than two-thirds of the cases.

The objection to a union between persons of the same temperament is, that the peculiarities of the parents are likely to be intensified in their offspring. Thus, if the father and mother are excessively nervous and irritable, the children will probably excel even their parents in these undesirable qualities; or, if both parents are inclined to corpulency, the children will almost surely inherit the same tendency. As a general rule, the children of parents

who are of different temperaments will possess a finer mental and physical organism than those whose parents are of the same temperament. This rule must, however, be taken with considerable allowance, for it is by no means invariable.

SHALL COUSINS MARRY?

The same principle which should govern the marriage of persons of the same temperament, applies also to the marriage of relatives. Deriving their constitution in part from the same ancestors, they will inherit many of the same traits and peculiarities, and these they will transmit to their children with increase. In almost every family there are certain peculiarities and oddities of character which it should be our care to exterminate rather than to perpetuate.

So also there are in most families traces of disease which should not be entailed upon posterity by intermarriage. Statistics prove beyond a doubt that cases of deaf-mutes, idiocy, insanity, deformity, and scrofula are more frequent among the children of those who marry relatives than among others. This may not, however, be entirely due to the consanguinity of the parents; but the same hereditary disease, afflicting them both, may descend with two-

fold force upon their offspring. We accordingly find that in most cases of deformed or diseased children, which result from a marriage of relatives, one or both parents will manifest strong symptoms of some constitutional disease.

We do not wish to be understood as condemning under all circumstances the marriage of cousins, nor do we wish to alarm those who are thus married by implying that their children will probably be deformed or idiotic. Many smart and healthy children have sprung from the marriage of cousins. If both the parents are healthy, and there is no hereditary disease in their families, they have good reason to expect that their children will be healthy and intelligent. There are, however, so few families that are entirely free from hereditary peculiarities and traces of disease, that the risk of marrying cousins is much greater than that of marrying into distinct families. The amount of risk will be proportionate to the degree of consanguinity, and this diminishes in a geometrical proportion, the relation of first cousin being twice as great as that of second, and four times as great as that of third.

KEEPING COMPANY.

A young man should not pay special attention to a young lady, or, in ordinary parlance, “keep com-

pany" with her, until he is of a proper age and in suitable circumstances to select a wife and marry. Not that a man should avoid ladies' society; on the other hand, association with pure and refined women is one of the greatest safeguards a young man can have against evil habits, and he will do well to seek it; but unless he is prepared for marriage he should be careful about selecting out a single lady as the object of his attentions.

These Platonic friendships between a lady and gentleman, or keeping company with each other for the sake of mutual benefit and culture, but with no intention of marriage, lead in many instances to unhappy results. The affections are too delicate and sacred to be lightly trifled with. In almost every instance one or the other of the parties will find that esteem has ripened into love, and this love, if not reciprocated, will be the occasion of much more suffering than any good the friendship has accomplished.

As to the still worse practice of acquiring a lady's affections for the excitement of the affair, with the intention of afterward deserting her—such a course is productive of great evil, and cannot be too highly censured. The woman who wantonly steals and tramples upon the affections of a man, is guilty of a great crime; but the male flirt

is as much more guilty than the coquette, as the love of a woman is purer, more absorbing, and more constant than that of a man.

The yet viler practice of seeking a lady's love for the purpose of seduction, we will not discuss; for no words of ours will be likely to influence a man so lost to all traces of honor and virtue as to deliberately seek to ruin the body and soul of a lady who bestows upon him the sacred treasure of her love.

LONG ENGAGEMENTS.

These are generally unnecessary and injurious. When marriage has once been decided upon, it is better that it should not be deferred more than a few weeks or months. If an acquaintanceship of three or four months does not satisfy a couple that they are adapted to each other, they will rarely be better informed after a courtship of three or four years. No matter if you have not already accumulated a fortune—your wife, if a true woman, will gladly show her love and devotion to you by putting her shoulder to the wheel and assisting you in your work. No young lady is worthy of a beautiful and pleasant home unless she is willing to help earn it. Besides, there is a "sweet sense of providing" which every young couple should have the privilege

of enjoying. The feeling that their united exertions have helped to acquire what they have, will greatly increase their appreciation and enjoyment of life.

There are also strong physiological reasons against long engagements. It keeps the affections and passions in an excited and unnatural condition, which after a time tends to weaken the nervous system and undermine the health. These evil consequences are common to both sexes, though they usually affect men rather more seriously than women. We have known several cases of worthy and virtuous young men who have had their health seriously impaired by protracted engagements. This matter should be thoroughly understood by every young man, and he should hesitate long before contracting an intimacy or engagement with a lady unless he is in a condition to marry.

The romantic and inexperienced reader will no doubt think we have degraded love by thus associating it with the sordid passions; but the remarks which our experience has led us to make upon this subject are fully substantiated by the highest medical authority.

“During the first passionate delight of an attachment,” says Dr. Acton, “no doubt the lower and more mundane feelings are ignored. But they

are present nevertheless, and, according to my professional experience, are tolerably certain to be aroused in every case, sooner or later. Of course where the affection felt is true and loyal, they may be corrected and kept within the strictest bounds of the most respectful tenderness: to do this, however, in the case of a protracted engagement, is a far harder task than the ardent and poetical lover allows himself at first to think.

“I am very far from wishing to degrade love to a mean animal passion; on the contrary, it should be a true and deep union of the whole nature, every part taking in this, as in all other matters, its own place. To ignore the bodily and secular aspect of it, however, would be as false and unwise, though not so degrading, as to forget the mental and spiritual.

“It is, indeed, more than false and unwise; it is dangerous. Experience too often proves that what has commenced as a pure and most refined attachment, may end very differently, if not most carefully guided. And this guidance, as I have said, may involve much troublesome and almost dangerous distress.”

Some instances of engagements will of course occur where the circumstances are such as to render marriage impossible for several years. Such cases

should always be looked upon as unfortunate in a physiological point of view. If the engagement must be kept up, our advice to the parties is to make their interviews infrequent, and to give as little thought to the subject as possible; but to devote their time energetically to whatever business engages their attention.

TIME OF MONTH AND YEAR TO MARRY.

The appointment of the wedding day is, by general consent, left to the bride. She should select a time about ten or fifteen days after the close of one of her menstrual periods. The generative organs will then be free from the congestion and sensitiveness which attend menstruation, and pregnancy will not be likely to follow the first approaches of the husband.

There is very little choice in the different seasons of the year for marriage, except that it is well to avoid extremes of either heat or cold. The labor and excitement attending the preparation for a wedding is always exhausting, and if to this is added the depressing influence of extremely hot or cold weather, there is danger that it may prove too much for the bride, and that her health may give way.

THE WEDDING TOUR.

It is usually customary for a married couple to spend the first few days or weeks away from home. The natural feeling which prompts them to do this is perhaps all the reason that need be urged in favor of the practice. The manner in which the honeymoon is usually spent is, however, liable to serious objections. The bride, tired out with the marriage preparations, with her nervous system in the highest state of excitability in view of the new and strange relation which she has entered, needs a season of repose and rest. But, instead of this, she enters upon a fatiguing tour of travel and sight-seeing. Wherever she appears, whether in the cars, the hotel, the dining-room, or the public assembly, searching eyes pick her out as the new bride, and she finds herself the observed of all observers. The result is that she returns from the wedding tour worn out and sick. Many a bride lays the foundation for years of future suffering by overtaxing herself on her wedding trip.

If, instead of this tiresome journey of sight-seeing, which neither of the couple is in any condition to enjoy, they would go to some quiet seaside or country hamlet, or, if they choose, to the house of some intimate friend, they could there enjoy their

honeymoon away from the prying eyes of inquisitive strangers. This would give them an opportunity to adapt themselves to their new relation, and to wear off the appearance of newness which always characterizes the couple who are but just married; then, at the close of their honeymoon, they could return to their ordinary pursuits rested and invigorated.

THE CONSUMMATION OF MARRIAGE.

The first consummation of marriage is often attended with difficulty. If the hymen is present, it must usually be ruptured before connection takes place; but, aside from this, the passage of the vagina is often at first too small to admit of complete intercourse. In overcoming these difficulties the husband should exercise great gentleness and forbearance. As a recent writer has said:

“Let him, at the time when the slow-paced hours have at last brought to him the treasures he has so long been coveting, administer with a frugal hand and with a wise forethought. Let him be considerate, temperate, and self-controlled. He will never regret it if he defer for days the exercise of those privileges which the law now gives him, but which are more than disappointing, if seized upon in an arbitrary, coarse, or brutal manner.”

If the obstructions do not yield after repeated trials, the use of some unctuous substance, or of copious injections of warm water, will generally succeed in relaxing the parts so as to render connection possible. In no case should violence be used, as it might produce injuries which would be irreparable; but if, after following the directions already given for a few weeks, the husband does not succeed, a physician should be consulted.

In occasional instances some difficulty on the part of the husband will prevent the consummation of marriage. The excitement of the first approach to his wife may cause the premature escape of the semen before connection is accomplished. This need not frighten the husband into the belief that he is impotent, nor alarm him in the least; but with patience and composure he may hope to overcome the difficulty after a few trials.

TEST OF VIRGINITY.

The entrance of the vagina is partially closed in childhood by a thin membrane called the hymen. This membrane often remains over the vagina until it is destroyed in the consummation of marriage; hence there is a prevailing belief that the presence of the hymen is necessary as a test of virginity.

This belief is without foundation in fact, and is often the cause of much evil and domestic misery ; for, while as a rule, the outlet of the vagina is partially closed by the hymen, in some women it never exists, and in many others it is destroyed by the accidents of childhood, by diseases requiring medical or surgical treatment, and sometimes even by the jar of a fall upon the ground. There are a score of ways in which a membrane so tender may be destroyed without reflecting upon the character of the person ; so that, in point of fact, not more than one-half the *virtuous* girls who arrive at a marriageable age have a perfect hymen.

Not only is the absence of the hymen no sign of unchastity, but its presence is no certain sign of virtue ; for several cases are on record where the hymen has been found perfect at the commencement of labor at the birth of the first child. The true test of virginity must be sought, not in the physical appearance of the body, but in modest deportment, chaste conversation, and pure thoughts.

SEXUAL DESIRES IN THE WIFE.

Many young couples are disappointed because the wife does not derive the same amount of pleasure

from marital intercourse as the husband. This grows out of the mistaken opinion that the sexual feelings are as strong in women as in men. Nature has wisely ordained that the desire for sexual gratification should only be so strong as to become a ruling passion in one of the sexes. Were this instinct equally powerful in women as in men, there is reason to fear that the evils of prostitution would be greatly increased.

Women may be divided into three classes as regards the strength of their sexual instincts: the first and smallest class have little or no sexual feeling. Intercourse with their husbands is almost a matter of indifference to them. They may make affectionate wives, and loving and tender mothers, but they have no idea of the nature and force of the sexual instincts.

The second class, larger than the first, but still small as compared with the whole number of women, have strong sexual passions—as strong in some instances as those of men. Some women seem to possess these passions naturally, while in others they are acquired by the practice of masturbation, by reading impure literature, and by indulging unchaste thoughts. In occasional instances the passions are so strong as to overpower the will, and constitute almost a species of insanity.

Modesty and shame are laid aside, and the wretched woman is almost constantly tormented with the goadings of her degrading passions.

In the great majority of women the sexual passions, like all the other instincts of her nature, are moderate. She is never indifferent to the approaches of her husband, but some times enjoys them much more than at others. She is not, however, often anxious for gratification, and suffers no special inconvenience from a separation from her husband of a few weeks or months.

Usually the sexual feelings increase somewhat after marriage, so that, after a few months, marital intercourse becomes more agreeable to the wife than at first. Not infrequently there is also a fuller development of the breasts after marriage than before.

FREQUENCY OF SEXUAL INDULGENCE.

The human species is the only class in the animal kingdom that indulge in the pleasures of love, except for the purpose of reproduction. Many have argued that man ought to conform in this particular to the example of the lower animals; but there are so many respects in which the sexual instincts of man differ from those of other animals,

that reasons drawn from analogy have but little force.

The same rule applies to the gratification of sexual desires as to that of all other instincts of the body—a moderate indulgence makes them a source of health and pleasure, but excessive indulgence a source of disease and aversion. The use of the sexual organs appeals to the strongest passions of the body. Many a young couple have had their beauty destroyed, the bloom and freshness of youth withered, and their health ruined by excessive sexual indulgence. The effect is usually the most severe upon the husband, yet the wife is by no means exempt from evil consequences. She becomes weak, nervous, and excitable, her eyes are dull and listless, her countenance has a sallow and jaded appearance, and in some cases we have seen traces of that indescribable expression which characterizes the public courtesan. In addition to this, it often produces leucorrhœa, and inflammation and displacements of the womb, with all their attendant train of evils.

Sexual excess is also the grave of domestic affection. It quickly destroys the ardor of first love, and makes the husband and wife indifferent to each other's presence and society. It renders husbands

cross, morose, and tyrannical, and wives fretful, irritable, and peevish.

In regard to what is the proper amount of indulgence, it is difficult to lay down any precise rule. Much will depend upon the age, vigor, and occupation of the parties. What would be moderation in one instance, might be excess in another. The great danger, however, lies in excess. We rarely need encouragement in the gratification of any desire, but rather restraint.

Some persons, in the vigor of early manhood, with strong, robust health, and engaged in active out-of-door employment, will have connection with their wives two or three times a week for several years, without apparent injury; but the majority of men would by such indulgence commit a great excess; and any man, however vigorous he may be, will lose his virile powers much younger by using them so freely.

It is sometimes astonishing to see the extent to which the use of the generative organs can be carried. In two or three instances we have known men, who have been married for several years, who had exercised their marriage rites regularly each night during the time. In one case the husband supposed he would be neglecting his family duties if a single night should escape; and when assured

that no such faithfulness was expected on his part, he seemed to be relieved of a great burden. Such instances serve to illustrate what abuse the human system will endure and yet survive. In all these cases the health was much impaired from excess, though the patients were ignorant of the true cause of their complaint.

The best rule which we have seen in regard to the amount of gratification is that laid down by Lallemand, which every person may apply in his own case :

“When connection is followed by a joyous feeling, a *bien être général*, as well as fresh vigor ; when the head feels more free and easy, the body more elastic and lighter ; when a greater disposition to exercise or intellectual labor arises, and the genital organs evince an increase of vigor and activity, we may infer that an imperious want has been satisfied within the limits necessary for health. The happy influence which all the organs experience is similar to that which follows the accomplishment of every function necessary to the economy.”

Dr. Acton expresses the opinion that “few hard-working, intellectual married men should indulge in connection *oftener* than once in seven or perhaps ten days. This, however, is only a guide for strong, healthy men. Generally, I should say that

an individual committed an *excess* when coitus was succeeded by languor, depression of spirits, and malaise. This is the safest definition. Such results would not happen if the male is in good health and indulges his sexual desires moderately."

There are also other considerations than those of health which should regulate sexual indulgence. The following advice from Bishop Jeremy Taylor is unfortunately too much needed in many Christian families :

" In their permissions and license, they must be sure to observe the order of nature and the ends of God. *He is an ill husband that uses his wife as a man treats a harlot*, having no other end but pleasure. Concerning which our best rule is, that although in this, as in eating and drinking, there is an appetite to be satisfied, which cannot be done without pleasing that desire, yet since that desire and satisfaction was intended by nature for other ends, they should never be separate from those ends, but always be joined with all or one of these ends, *with a desire of children, or to avoid fornication, or to lighten and ease the cares and sadnesses of household affairs, or to endear each other* ; but never with a purpose, either in act or desire, to separate the sensuality from these ends which hallow it.

“Married persons must keep such modesty and decency of treating each other that they never force themselves into high and violent lusts with arts and misbecoming devices; always remembering that those mixtures are most innocent which are *most simple* and *most natural*, *most orderly* and *most safe*. . . . It is a sad truth that many married persons, thinking that the floodgates of liberty are set wide open, without measures or restraints (so they sail in the channel), have felt the final rewards of intemperance and lust by their unlawful using of lawful permissions. Only let each of them be temperate, and both of them be modest. Socrates was wont to say that those women to whom nature hath not been indulgent in good features and colors should make it up themselves with excellent manners, and those who were beautiful and comely should be careful that so fair a body be not polluted with unhandsome usages. To which Plutarch adds, that a wife, if she be unhandsome, should consider how extremely ugly she would be if she wanted modesty; but if she be handsome, let her think how gracious that beauty would be if she superadd chastity.”

It is especially important that as persons advance in years, they should lessen the frequency with which they indulge in sexual pleasures. Many a

man breaks down prematurely from over-indulgence of the passions. It is proverbial that old men who marry young wives are very likely to break down and die within one or two years afterward. The reason of this fact is easily understood, and it should be a warning to all as they approach the age of forty-five or fifty to moderate very materially the amount of their sexual indulgence.

There are times in which sexual connection should be entirely suspended ; as during menstruation ; when the wife is recovering from sickness, or is suffering from any uterine disease, which is attended with hemorrhage, or which makes connection painful. Under any of these circumstances the excitement attending connection is likely to be very detrimental to the health of the wife.

THE SLEEPING APARTMENT AND BED.

The usual custom of husband and wife occupying the same bed is, no doubt, under ordinary circumstances, the best. During the day they are usually most of the time separated from each other, engaged in their different pursuits, so that there is more need that they should enjoy each other's society during the night. By so doing they will

secure a closer feeling of companionship and affection for each other.

When there is a difference of thirty or forty years in the age of the husband and wife, separate beds are advisable; for it is well known to be injurious to the health of a young person to sleep with one who is advanced in years. So, also, if on account of disease or any other cause it is desirable that the sexual relations between the husband and wife should be suspended, separate sleeping apartments should be used; for otherwise, however good the intentions, they will rarely be carried out.

The sleeping-room should be large and well ventilated. One-third of the time is passed in bed, and it is, therefore, of great importance that it should be spent in the manner that will most conduce to health. If you sleep in a small, close room, where you must breathe the air over two or three times before morning, you wake up weak, languid, unrefreshed, with a bad-tasting mouth, and often with a headache. No sleeping-room for two persons to occupy should be less than twelve feet square; and even when of that size, it is better that a window should be lowered to admit fresh air during the night.

A hair or wool mattress makes a much more healthful bed than feathers. It is immaterial, so far

as the health is concerned, whether the mattress is placed upon slats, so as to make a hard bed, or upon some species of springs. No more bedding should be used than is just sufficient to keep the body comfortably warm.

CHAPTER XII.

REPRODUCTION.

EVERYTHING that lives has implanted within it the elements of decay and death. The very exercise of the vital powers is inseparably connected with their waste and gradual destruction. "Every living substance has a definite term of life, through which it passes by the operation of an invariable law, and which, at some regularly appointed time, comes to an end. The plant germinates, grows, blossoms, and bears fruit, then withers and decays. The animal is born, nourished, and brought to maturity, after which it retrogrades and dies. The very commencement of existence, by leading through its successive changes, conducts at last to its own termination."

"But while individual organisms are thus constantly perishing and disappearing from the stage, the particular kind, or species, remains in existence, apparently without any important change in the character or appearance of the organized forms belonging to it. The horse and the ox, the oak

and the pine, the different kinds of wild and domesticated animals, even the different races of man himself, have remained without any essential alteration ever since the earliest historical epochs. Yet during this period innumerable individuals belonging to each species or race must have lived through their natural term and successively passed out of existence." * The wonderful and almost miraculous manner in which the different species are thus preserved and sustained will form the subject of our inquiry in this chapter.

DEVELOPMENT OF CELLS.

All animals and plants begin their existence in a minute cell, called the germ-cell. Many of these are so very small that one million can be contained in a single drop of water. In the development of this germ-cell, it first divides into two cells; these two cells subdivide into four; these four again subdivide into eight, and thus they go on constantly multiplying or reproducing themselves. Many of the lowest order of animals never pass beyond this simple cell-developing condition. They absorb their nourishment from surrounding substances, just as the sponge absorbs the fluid in which it is placed,

* Dalton.

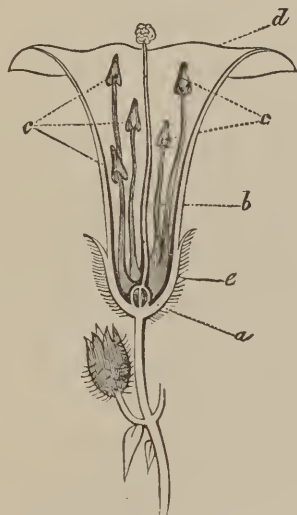
and they reproduce themselves by a simple subdivision. Each cell is, in a certain sense, a separate individual, and has the power of multiplying itself.

In these lower types of animal life we perceive, therefore, that every part of the animal is endowed with the power of reproduction; but in all the higher orders, of both plants and animals, only certain portions of the body have this power—those parts known as the organs of reproduction. These furnish two elements or principles—one known as the male and the other as the female principle; and in order that a plant or animal may reproduce its kind, it is necessary, in all cases, that these two elements should be united.

REPRODUCTION OF PLANTS.

The reproductive organs of plants are contained in the flower, or blossom. In most plants the male and female organs exist in the same blossom. This is the case with the *Convolvulus Purpureus*, or common Morning Glory, shown in the accompanying cut. In the centre is the female organ of generation, called the receptacle, or vegetable womb (*a*). This furnishes the germ or female principle of reproduction. Extending up from this is a hollow tube

called the pistil (*b*), which terminates in a cup-like expansion. Around the pistil are arranged several slender filaments known as stamens, and upon the top of these are the anthers, or male organs of the flower (*c*). Around these is a circle or crown of beautiful leaves, called the corolla (*d*), and around



SECTION OF MORNING GLORY.

this still a smaller sheath of green leaves, called the calyx (*e*). The calyx and corolla give beauty to the flower, and also serve to protect the delicate structures which they inclose, but they are not essential to its reproduction.

The anthers, when arrived at maturity, discharge a fine organic dust, called pollen, which is the male principle of reproduction. This is caught upon the extremity of the pistil, and penetrates downward through its tissues until it reaches the vegetable womb, and comes in contact with the female principle, or germ. The germ thus fecundated, the process of generation is accomplished. The pistil, anthers, and corolla wither and fall off, while the germ increases rapidly in size and changes in form and texture until it ripens into the mature fruit or seed. It is then ready to be separated from the parent stem, and, if placed in the proper soil, will germinate, and produce a new plant similar to the old.

In the case we have described, the male and female organs are situated in the same flower; but in some instances there are separate male and female flowers upon the same plant. This is the case with Indian corn, where the pollen from the tassel or male flower floats through the air, and unites with the silk or female flower. You see, therefore, how it is that different varieties of corn may mix when planted side by side. The pollen from the tassels of one variety finds its way to the silk of another variety, and thus produces a species of vegetable amalgamation.

In some instances the male and female flowers

are situated upon different plants, one plant bearing only male blossoms, and another bearing only female blossoms. This is true of the palm-tree of the tropical climates, and of the willow and poplar of our own country. Sometimes the pollen has to float many rods through the air in order to unite with the female flower.

ANIMAL REPRODUCTION.

In the reproduction of animals we find essentially the same principles holding true as in the reproduction of plants. In some of the lowest orders of animals, the male and female organs are found to co-exist in the same individual. This is the case with the tape-worm, the snail, the oyster, and many other of the lower animals ; so that these animals are often said to be hermaphrodite, or of double sex.

In all the higher animals, however, the two sets of generative organs are located in separate individuals, and the species are consequently divided into two sexes, male and female. The function of the female is to furnish the female germ or egg, while the male furnishes the principle which is to vivify or give life to the egg. The only condition necessary for reproduction is that these two prin-

ciples should be brought together under circumstances favorable to their development. These circumstances vary considerably in different species of animals. We will first describe some of the simpler forms, as it will better enable us to understand human reproduction.

REPRODUCTION OF FISH.

At certain seasons of the year the female fish resorts to some quiet part of the stream, away from the swift current, where she deposits her eggs. The male fish, directed by instinct, seeks out the same locality, and deposits the semen, or sperm, upon the eggs. The eggs, thus impregnated, absorb nourishment from the surrounding water, and in the course of from sixteen to twenty days are developed into little fish. A pair of fish will often in this manner reproduce thousands of their kind in a single season.

REPRODUCTION OF BIRDS.

The reproduction of the different varieties of the feathered tribe is also accomplished by means of eggs, which are developed outside of the body; but it differs from the reproduction of fish in that the egg is impregnated during its formation within the

generative organs, instead of after it leaves the body. These eggs are also large in size, because there must be stored in them, not only the germ of the future bird, but also the nourishment upon which it must subsist during its life within the shell.

REPRODUCTION OF QUADRUPEDS.

The reproduction of the higher order of animals differs from that of fish and the feathered tribe in one important particular—the eggs are retained within the generative organs of the female during the formation and development of the offspring. This renders reproduction far more difficult and complicated among the higher than among the lower animals.

It also worthy of notice that reproduction is much less prolific as we advance to the higher order of animals. Fish and fowls multiply themselves each year by tens and hundreds; many kinds of quadrupeds give birth to several young each year; but man, standing at the head of the animal kingdom, is the least fruitful of all.

HUMAN REPRODUCTION.

The reproduction of man, like that of the lower animals which we have described, is effected by

means of an ovum, or egg. The changes which the egg undergoes in its development into the human being, will be better understood by a brief description of the female organs of generation. These consist of the vagina, uterus, or womb, Fallopian tubes, and ovaries.

THE VAGINA.

The vagina is a flexible canal from three to five inches in length, extending from the external parts to the womb. It passes upward and backward in a somewhat curved direction, following the general course of the lower portion of the backbone. It occupies a central position in the pelvic cavity, being situated between the rectum, which lies behind, and the urethra and bladder, which lie in front. Owing to the curved direction of the vagina, it is about one inch longer upon the back side than upon the front. Its outlet is partially closed by means of a constrictor muscle, and its walls naturally lie in contact with each other during the greater part of its course.

THE WOMB.

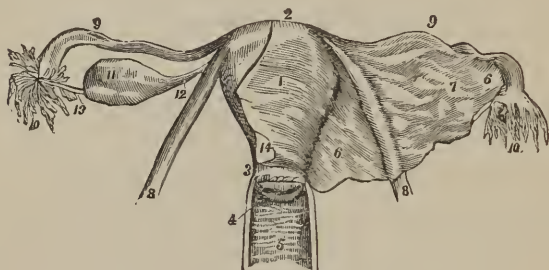
Extending upward from the vagina is the uterus or womb. This is the central and most important

of the organs of generation, and is shaped very much like a pear, with the stem or pointed end downward. It is about three inches in length, two inches in breadth, and one inch in thickness, weighing in its natural state about two ounces. We wish especially to impress upon the mind the small size of the normal uterus, for the general opinion is that it is an organ of much larger dimensions.

The position of the uterus in the body is not in a line with the vagina, but while the vagina passes upward and backward, the uterus passes upward and forward. This change in direction conforms to the curvature of the lower part of the spinal column, and to the position of the surrounding organs, thus giving to each organ of the pelvis the greatest amount of room.

The uterus is composed of two parts, the neck and body. The neck comprises the lower third, and the body the remaining two-thirds. About one-half of the neck of the womb projects down into the vagina, so that it can be felt in the upper part of the vagina as a roundish and somewhat hard substance. In the centre of the projecting portion of the neck is situated the entrance to the womb, called the mouth of the womb. This entrance is exceedingly small, being only large enough to admit a common-sized knitting-needle. The cavity of the

womb extends upward from the neck almost the entire length of the womb. This is also exceedingly small, capable of containing in its natural condition only five or ten drops of fluid.



THE WOMB AND ITS ATTACHMENTS.

1, 2. Body of Womb. 3. Neck of Womb. 4. Mouth of Womb. 5. Vagina—front part cut away. 6, 7. Broad Ligaments. 8, 8. Round Ligaments. 9, 9. Fallopian Tubes. 10, 10. Hand-like extremity of Tubes. 11. Ovary. 12. Cord attaching Ovary to the Womb.

The womb is held in its position in the pelvis partly by the vagina which forms a support from below, partly by its attachment to the rectum and bladder, and partly by the broad and round ligaments. The broad ligaments consist of two thin, broad bands, which pass from the sides of the womb to the sides of the pelvis. The round ligaments are small and firm, like a piece of small cord, and pass from the upper part of the sides of the womb to the front part of the pelvis. These ligaments tend to

keep the womb from falling sidewise or backward, while its connection with the rectum and bladder keep it from falling forward, and further protect it from falling backward. Nearly all the weight of the womb is sustained by the vagina, which is by far its most important means of support.

FALLOPIAN TUBES, AND OVARIES.

Embodied in the folds of the broad ligaments which we have described, we find the Fallopian tubes and ovaries. The Fallopian tubes are two minute tubes extending outward from the upper part of the cavity of the womb, and terminating near the ovaries in a fimbriated or hand-like extremity.

The ovaries are two little bodies about the size and shape of an almond. They are situated high up in the pelvis, at the sides and just in front of the upper part of the womb, and are firmly attached to the womb by means of two strong ligaments. When the ovaries are examined under the microscope we find them composed of minute ova or eggs, each one inclosed in a separate sack. These eggs are in different stages of development, the largest being nearly the size of a mustard-seed, while others are not more than $\frac{1}{1000}$ of an inch in

diameter. When these eggs are examined under a powerful microscope, they are found to be composed of essentially the same parts and materials as the larger eggs of fowls and birds.

The ovaries are the source of the generative functions in the human female. In every healthy woman who has arrived at the age of puberty, one or more of these eggs ripens every twenty-eight days, when it ruptures the sack which incloses it, and escapes from the ovary. But before the sack bursts, the hand-like extremity of the Fallopian tube, guided by some unexplainable impulse, reaches over and grasps the ovary, receives the egg, and carries it to the womb. When it has reached the womb it has exhausted its own resources of development, and it soon passes into the vagina, and is discharged from the body.

HOW IMPREGNATION TAKES PLACE.

In order that the egg may develop into a living being, it must have imparted to it the vivifying principle furnished by the male. The manner in which this reaches the egg demands a word of explanation ; for the prevailing opinions upon this subject are very erroneous.

We have already explained how the semen is formed by the male generative organs, and have

described its peculiar appearance as seen under the microscope. It is, as we have seen, filled with little cells, to each of which is attached a slender filament or tail which propels it from place to place. These germ-cells, or spermatozoa, are the essential part of the semen.

There are hundreds of these in a single drop, and each one contains the element of human life. They are not, as some have supposed, animals, but simply moving cells. They, however, possess a species of vitality which enables them, under favorable circumstances, to retain their life and activity for several hours ; yet, like the egg of the female, they have not within themselves any power of growth or development.

Impregnation is accomplished by the union of one of the spermatozoa with the egg furnished by the ovary. This union usually takes place during the passage of the egg along the Fallopian tube, but occasionally it occurs upon the surface of the ovary, or within the cavity of the womb. But we have seen that the cavity of the womb is only large enough to admit a common-sized knitting-needle. How, then, are these germ-cells to find their way into the womb and Fallopian tube, where they can meet the egg? This they accomplish of their own accord, by means of the moving power which they

possess. They are deposited in the act of connection within the vagina, and occasionally within the mouth of the womb. From here one or more of them work their way into the body of the womb, and finally into the Fallopian tube, where they meet the egg, when the process of impregnation is accomplished. The dormant egg has now become a living germ, and immediately begins its development into a human being.

TIME OF IMPREGNATION.

From this description it will be seen that impregnation does not take place during connection, as is generally supposed; but a sufficient time must elapse for the semen to find its way into the Fallopian tube where it can meet the egg. This will rarely require less than thirty minutes, and it may take several hours. The opinion, therefore, which is frequently entertained, that the husband and wife can tell by their own sensation when impregnation has taken place, is wholly erroneous. It is not even necessary that the wife should participate with the husband in the enjoyment of the marital embrace, although the conditions necessary for impregnation are rather more favorable when this is the case.

PLURAL BIRTHS.

There is usually but one egg discharged from the ovaries each month, and consequently a woman generally has but one child at a birth. Occasionally, however, an egg is discharged from each ovary, or two or more eggs are discharged from the same ovary, when, if they all become impregnated, there will be twins, triplets, or even four or five children at one birth. Twins occur in about one pregnancy in every eighty, but triplets are much less frequent, while cases of four or more at a birth are so rare as to be considered curiosities.

A predisposition to plural births seems to exist in some families. It is not infrequent to find a mother and daughter, or several daughters of the same family, who have given birth to twins. It is also found that the liability to twins increases with the number of pregnancies; and in general we may observe that plural births are more likely to occur in women who are very prolific.

Twins are not usually as healthy and rugged as other children. When there are more than two children at a birth, it is very rare for them all to live; and even of the twins born, fully one-half die in infancy or early childhood.

INCREASE OF POPULATION IN INVERSE RATIO
TO WEALTH AND REFINEMENT.

The reproduction of the species is without doubt the most important object connected with marriage. Be ye fruitful and multiply, is the injunction both of Holy Writ and of nature, and it is alike the duty of the moralist and the scientist to encourage the propagation and increase of the human family. No greater calamity can befall any nation or race than unfruitful marriages. A distinguished English writer * claims that the cause of the decline and fall of the Roman Empire was a want of men. "The human harvest was bad." As the nation became possessed of the refinements of wealth and luxury, marriages were less fruitful, until it was no longer possible to keep the army recruited from the brave old Roman stock.

The same tendency is observable in the history of all nations. When they are poor, and are struggling against hardships and privations, families increase rapidly; but when as a reward of their labor they acquire wealth, and are able to live in idleness, children become a luxury, and the families are consequently small.

* Professor Seelye.

This fact is even more striking when applied to the different classes of society here in our country. It is shown by extensive statistics collected by Dr. Allen, of Lowell, Mass., that the average number of children to American families in New England is but three or three and a half against an average of eight to families of a corresponding social scale a century ago. Population can barely be kept up among the cultivated classes without an average of more than three children to a family. It would seem, therefore, that the rapid increase of population in our country is mostly due to immigration, and to the more prolific families of our foreign classes.

Closely allied to this is the notable fact that large families are nearly all found among the poor, while the wealthy either have few children or are childless. Thus it would appear that those who are least able to rear and educate their children are the ones who by common consent are left to furnish the coming generation.

This arrangement, however unnatural it seems, is not without compensation. The simple habits and active labor of the poor generally give them rugged bodies, so that they produce a healthy and vigorous progeny; besides, the blessings which the wealthy enjoy are so often perverted to the physi-

cal and moral ruin of their children, that there is strong reason to believe that the children of the poor are on the whole better cared for than those of the rich.

WHEN IMPREGNATION CAN AND WHEN IT CANNOT TAKE PLACE.

In order that impregnation may take place, three things are necessary : semen containing perfect germ-cells, a healthy egg, and the union of the semen and egg in the Fallopian tube, ovaries, or womb. If either of these conditions is wanting, impregnation is impossible. We have seen that an egg is developed by the ovaries once in twenty-eight days ; that it enters the Fallopian tube, and, after remaining for a few days, passes away. Hence it follows that impregnation can only occur during that part of the month that the egg is retained within the generative passage. The egg usually leaves the ovary at about the time that the woman ceases to menstruate, and occupies from five to ten days in its passage through the generative organs. Impregnation is, therefore, most likely to occur during the first ten days after the woman ceases to menstruate. But the egg may be discharged into the Fallopian tube just before menstruation : it may

remain in the tube longer than usual; or, again, the semen may retain its vitality for a number of days; so that impregnation may and often does occur at other times during the month. It is probable that there are but three or four days during the month that a woman can be impregnated; but this period may vary so greatly in different women, and also at different times in the same woman, that it is impossible to give any absolute rule which will apply to every case.

PREVENTION OF CONCEPTION.

Nature has wisely associated the reproduction of the species with the highest gratification of physical pleasure. A late distinguished president of one of our leading colleges once asserted that were it not for this fact the race would rapidly become extinct. However humiliating the acknowledgment, extensive observation and inquiry compel us to admit that more than half the human family owe their birth to accident rather than to the design of their parents.

While we believe it to be the general duty of every family to contribute their full share to the rising generation, yet some cases occur where a limitation or entire prevention of offspring is desir-

able. There are some women with deformed pelvis, to whom the birth of a child would be almost certain death. Again, some are unfortunately married who are so tainted with consumption or other hereditary disease, that pregnancy would greatly endanger their own lives as well as bring into the world a weakly and diseased child. It is also desirable that one pregnancy should not follow another too quickly: it is better for both mother and child that from two to three years should intervene between each pregnancy. In all such instances it would seem desirable that impregnation should not occur.

There are also parents who feel that their families are already as large as they can support, and that any addition would only entail new privations and hardships upon the balance of the household. It is useless for us to say to such that the proper remedy is to suspend the exercise of the marriage rites. Such advice would not be heeded in one case in a hundred, and we should only drive the wife to sacrifice her health, her conscience, and, perhaps, her life, by the terrible crime of abortion. It therefore becomes our duty, as moralists as well as physicians, to present to our readers the information which science has revealed upon this subject.

As we have already shown, there is a consider-

able portion of each month when a woman is sterile. From about ten days after the cessation of menstruation until within two days of the next period it is not usual for a woman to become pregnant. Most women are also sterile during the time they are nursing. Many married couples, with a knowledge of these facts, have been enabled to regulate the size of their families in accordance with their desires. These two periods of natural sterility offer all the opportunities for sexual indulgence which any reasonable husband ought to desire.

But many husbands are not reasonable, and will not be restrained by these natural limits. Besides this, we have seen that they are not periods of absolute sterility, and impregnation may occur more frequently than is desirable, even if connection is entirely abstained from at other times.

Are there then any means that may be employed which will allow of sexual gratification, and yet prevent conception? Candor compels us to state at the outset that the best of the means employed are liable to grave objections. Impregnation is the natural result of sexual connection, and any means made use of to thwart this purpose opposes the most delicate and important functions of the body, and must necessarily be more or less repulsive to the feelings and detrimental to the health.

We are aware that there are books which teach differently. The usual course with these books is to mention the means commonly employed, with the objections to which they are liable; and then they are suddenly seized with a tender conscience, and state that there is *one* way which is both efficacious and harmless, but a conscientious regard for morality will not allow them to make it public. You will generally find, however, that their conscience does not prevent them from adding, in a foot-note or otherwise, that parties who may need the remedy may procure it by sending them a fee of five or ten dollars. We would especially warn our readers against all such remedies, as well as against all medicines offered to the public in strict confidence and at an exorbitant price. In every instance the remedies recommended will either be worthless or they will be highly injurious to the health. This is a favorite field for swindlers to operate in; for the nature of the transaction is such that they know they will not be exposed.

Nearly all the devices for avoiding conception have for their object the prevention of the semen from passing up into the womb. The means for this purpose which are liable to the least objection are the use of the condom, or male shield, and of injections of warm or tepid water immediately after

connection. Of these, the last is least repulsive in its use, while the first is the most effective. Neither of these remedies is a perfect preventive, nor is their frequent use free from injury to the generative organs: they are, however, in every respect preferable to the use of substances introduced into the vagina, medicated injections, incomplete connection, or any of the secret nostrums which are so extensively advertised.

We believe, however, that the better course for every married couple is to make use of no preventive, except to limit their indulgence to the period when the wife is naturally sterile. This is the only means of avoiding conception that is not in direct antagonism to nature, and the only means that can be employed that will not be likely sooner or later to inflict the punishment of ruined health and blasted hopes.

The evils connected with the prevention of conception, important as they are, sink into insignificance when compared with another practice, which is, alas! too often resorted to for the limitation of offspring, viz.:

INTENTIONAL ABORTION.

This part of our subject we would gladly pass over in silence, were it not that the magnitude of

the evil is so great, that every feeling of philanthropy and morality calls upon us to speak of it in its true light. If this evil were principally resorted to for the purpose of covering up the fruits of licentiousness, and shielding from open disgrace the victims of dishonored virtue, there might perhaps be a faint apology for silence ; but, with shame for the wives and mothers of our land, we are compelled to admit that they are the chief offenders. This statement may seem strange to the ears of many a devoted Christian wife and mother, but to the physician, who is a general receiver of family secrets, it is a well-known fact.

It would be impossible to estimate the number of abortions annually produced in this country, though there can be no question but that they would be counted by thousands. There is scarcely a village of four or five thousand inhabitants, which has not one or more professional abortionists, many of whom count their victims each year by scores and hundreds.

It is now generally conceded by all who are informed upon the subject, that intentional abortion is, to all intents and purposes, murder. A child is as much a living being while within the womb, as after it is born. All the functions of its body, except breathing, are as perfectly performed in the one

case as in the other. Some have tried to make the distinction, that before the time of quickening, the child has no life, and therefore there is no sin in its destruction ; but, as we shall presently show, the time of quickening is simply the period when the child attains sufficient strength to make its movements felt by its mother. The development of the child is a steady process of growth, from the moment of conception until the full stature of manhood is attained, and there is every reason to believe that life begins with the first union of the male and female germ-cells.

This fact has been recognized by lawgivers and legislators in nearly every age and country ; and they have accordingly made intentional abortion a crime, punishable with imprisonment, and, in some instances, with death. The laws of a few States discriminate between a child that is *quick* and *not quick*, but this distinction is now acknowledged by all scientific men to be without foundation ; and no doubt our lawgivers will soon change the statutes accordingly.

Let it, then, be distinctly understood that the person who intentionally produces an abortion, whether by the use of medicines, instruments, or any other means, is in the sight of man a criminal, and in the sight of God a murderer ; and the mother

and friends who assent to the act are accomplices in the guilt. In the light of these facts we appeal to parents: Are you willing to incur the responsibility of this deed? are you willing to appear before the bar of God a destroyer of your own flesh and blood?

We might adduce as a reason against intentional abortion, the great risk to the mother's life and health: if she cares not for her moral obligation in the matter, a sufficient regard for her own welfare should deter her from the terrible act; but the other and stronger considerations are all that any true woman will need.

Society at large also has a duty in this matter. The united interests of humanity and Christianity demand that this crime should be discountenanced in every possible way. Any person who will employ a known abortionist in his family, or any physician who will counsel with one in practice, thereby lends his influence to this nefarious practice, and helps to give respectability to the perpetrators of this terrible crime.

STERILITY.

Whenever from any cause a woman cannot become pregnant, she is said to be sterile or barren.

This has always been looked upon as a misfortune ; for, however averse a woman may be to having a large family, she dislikes to feel that she is deficient in any of the functions of her sex. Besides, the families are few who do not desire to leave some one behind them to inherit their name and blood.

In families who have no children the fault is usually assumed to be with the woman ; but this is not necessarily true. Impotence in men is not as frequent as sterility in women ; and yet, as we have already seen, such cases are by no means rare. Dr. Thomas mentions two cases occurring under his own observation, where he removed the hymen, supposing it to be the cause of sterility ; but afterward learned that the husband was entirely impotent, and had been so ever since his marriage. Sometimes semen will appear to the naked eye to be perfectly healthy, but when viewed under the microscope we find it contains no germ-cells. Of course such semen has no life-giving power.

When the fault is with the woman, it usually arises from one of two causes—either there are no eggs formed, or the semen cannot get access to the eggs. If there are no eggs formed, there will be no menstruation ; for menstruation is caused by the formation and discharge of the egg. Such cases are rare, and are usually caused by the absence or

rudimentary condition of the ovaries, Fallopian tubes, or womb.

The most frequent cause of sterility is some obstruction which prevents the semen from reaching the egg. For instance, the passage of the womb may be small and contracted, so as hardly to admit a common cambric needle. In this condition the presence of a single drop of mucus will entirely block it up, and prevent the entrance of the semen. Again, the womb may be bent upon itself, as in ante-*flexion* or retro-*flexion*, so that its passage will be entirely closed ; or the neck of the womb may be crowded by displacements against the walls of the vagina, and thus the entrance obstructed.

Inflammation of the womb may also cause sterility. In many cases the neck of the womb is kept constantly filled with a thick tenacious discharge, which prevents the entrance of the semen ; while in others the discharge from the diseased womb is so acrid as to destroy the vitality of the germ-cells contained in the semen.

Occasionally cases of sterility occur where the structure and functions of the uterine organs seem to be perfect. This is sometimes the result of a want of sexual feeling, while more frequently it is produced by causes which science has not as yet fully revealed.

Sterility is probably more frequent than is generally supposed, statistics showing that about one marriage in eight is unfruitful. It is also shown that in a majority of cases, a woman who is fruitful will give birth to her first child within a year and a half of her marriage, while if three years elapse without her becoming pregnant, the chances are thirteen to one that she will remain childless.

Some women become pregnant with much less readiness than others. In some cases the egg passes from the ovary so quickly that there may perhaps be but a single day each month during which impregnation can take place. Hence it often happens that women are supposed to be sterile, who, under proper circumstances, might become pregnant. The time when impregnation is most likely to occur is, as we have already seen, during the first few days following the menstrual epoch; but in some instances it will not occur at this time, but will occur either during menstruation, or immediately preceding this period.

Impregnation is often prevented by too frequent sexual intercourse. In many instances, women who have been supposed to be sterile, have become pregnant immediately upon the return of their husbands, after a separation of a few weeks or months.

We thus see that in a majority of cases, sterility is not a natural condition peculiar to certain women, but the result of a derangement of some of the uterine organs, brought on perhaps by some impropriety of dress, imprudence during menstruation, or other artificial or injurious habits. If the wife does not become pregnant during the first few years of married life, the case need not, therefore, be considered hopeless; for in many instances the sterility may be removed by proper management, or by suitable medical and surgical treatment.

CAN THE SEXES BE PRODUCED AT WILL?

Many theories have been propounded pretending to explain what it is in the process of generation which determines the sex of the child. Some claim that the eggs from one ovary produce male children, and from the other female; others, that the sex is determined by the relative vigor of the egg furnished by the female, and the spermatozoa furnished by the male. If either of these theories were true—which is very doubtful—it would furnish no clue to the voluntary production of the sexes.

The most popular theory at the present time is that advanced by Professor Thury, of Geneva, Swit-

zerland. He claims that if the egg is impregnated when it first leaves the ovary, the product of conception will be a female ; but if at a later period, male. In accordance with this principle, he has laid down the following rule for stock-raisers : “ If you wish to produce females, give the male at the first sign of heat ; if you wish males, give him at end of the heat.”

This rule has been put to the test by numerous stock-growers, in both this country and Europe, and, so far as we have seen their reports, it has very generally been found to succeed. One trustworthy stock-raiser testifies that he has made twenty-nine experiments after this plan, and has not had a single failure.

In applying this rule to human reproduction, it is claimed, that “ whenever intercourse has taken place in from two to six days after the cessation of the menses, girls have been produced ; and whenever intercourse has taken place in from nine to twelve days after the cessation of the menses, boys have been produced.” We regret to say, however, that the cases of human reproduction which have been reported do not all confirm this theory. This probably arises from the fact that there is in the human female a much greater variation in the time that the egg leaves the womb than in the lower

animals. The number of statistics is yet too limited to form any definite conclusions; but we should judge that the rule may be expected to hold true in rather more than three-fourths of the cases.

PREGNANCY.

There are many facts connected with pregnancy which it is important husbands as well as wives should understand. So intimately associated are they in many of the daily affairs of life that the husband cannot properly care for and protect his wife without a knowledge of her organization and wants. We have known many cases where the health and sometimes life of a devoted wife has been sacrificed in complying with the wishes or the caprice of a well-meaning but ill-informed husband. Even now, as we write, the funeral cortege goes by, bearing a woman who died three days after childbirth from sitting up in bed to gratify her husband. It needs, therefore, no apology for explaining the subject of pregnancy to husbands as well as wives, for both are equally interested in the care of the wife's health at this time.

DEVELOPMENT OF THE EGG.

As soon as impregnation takes place, the egg, if in the Fallopian tube or ovary, passes to the womb.

At the same time the lining membrane of the womb is thrown into ridges or folds, into one of which the egg is received. This fold then grows around the egg and forms a membranous sack, which incloses it, and increases with its growth, firmly attaching it to the womb during the whole period of the development of the fœtus.

In the course of twelve or fifteen days after impregnation, the egg begins to show some trace of its formation into a living substance. At one month it resembles in size and appearance a maggot curled up. Traces of the eyes and mouth are visible, but the limbs have not yet made their appearance.

At two months the embryo is about the size of the little finger, and upon first inspection it resembles a young mouse much more than the tiny specimen of humanity which it is. On closer examination, however, we are able to trace faint outlines of the human form, and to distinguish the rudiments of the hands and feet.

From this time the growth of the fœtus is more rapid. At the end of three months nearly all the organs of the body are sufficiently developed to be easily recognized, and the sex of the child now, for the first time, becomes apparent.

ELEVATION OF THE WOMB.

From the third to the fourth month important changes take place in both the womb and the fœtus. Up to this time the womb has remained in the pelvic cavity in nearly its natural position. But now the womb becomes so large that there is no longer room for it in the pelvis, and it accordingly rises up in the body, producing the first enlargement of the abdomen.

NOURISHMENT OF THE FŒTUS.

During the first few weeks of the existence of the fœtus, the heart and arteries are undeveloped ; it receives its nourishment by absorption through the pores of the skin and by the aid of little blood-vessels that connect the womb with the embryo. But at the end of about three months, the fœtus has attained such a growth that a more abundant supply of nourishment must be provided. This is accomplished by the formation of the placenta and umbilical cord. The placenta consists of a mass of blood-vessels attached to the side of the womb. The umbilical cord is composed of an artery and two veins which pass from the placenta to the navel of the child, connecting the placenta with the heart

and arteries of the fœtus. By this arrangement the blood of the child all passes to the placenta, and is purified by contact with the mother's blood, very much as the blood of a person is purified by passing to the lungs and coming in contact with the air.

TIME OF QUICKENING.

After the formation of the placenta and umbilical cord, the growth of the fœtus becomes more rapid, and the muscles soon acquire sufficient strength to make the movements of the child felt by its mother. This period is called the time of quickening. It usually occurs about midway between the fourth and fifth months, but it may take place earlier, or a few weeks later.

A popular impression often prevails that at this time life is first imparted to the unborn child; but this is a great mistake. Life begins with the very instant of conception, but it is not until the period of quickening that the child is sufficiently strong to make its movements felt. The impression, therefore, which sometimes prevails, that the death of the child before the period of quickening is not attended with guilt, is wholly without foundation in fact.

FURTHER DEVELOPMENT OF THE FŒTUS.

At five months the fœtus will usually weigh from sixteen to twenty-four ounces ; its nails are beginning to form, and its movements are more distinctly felt. The beating of the fœtal heart can now be heard by listening for it attentively. It will at this time beat from one hundred and thirty to one hundred and forty times each minute.

At six months the fœtus is so far developed that should an abortion take place, the child might be born alive, but it would probably live but a few minutes. The nails are about half-formed, and a little down appears upon the head.

AGE AT WHICH A CHILD MAY LIVE.

Seven months is the earliest age at which a child may be expected to live. There are a very few instances in which children a little younger have been reared ; but the majority of such cases which are reported, rest upon too poor testimony to be received with confidence. Not more than one-third of the children born at seven months are raised ; but a child born at eight months stands nearly as good a chance of living as one born at the full term.

During the eighth and ninth months the child in-

creases considerably in size and in its general development. The womb rises high up in the cavity of the abdomen, and crowds upon the heart and lungs, so as to cause shortness of breath and palpitation of the heart. During the last two weeks of pregnancy the womb usually settles down, so as to partially relieve these unpleasant symptoms.

GROWTH OF THE WOMB.

During the whole development of pregnancy the size of the womb keeps pace with the growth of the foetus. The womb at first is a small organ, only three inches in length, and holds but a few drops; at the close of pregnancy it is ten or twelve inches in length, and holds nearly a gallon. Its increase in weight is no less remarkable. At first it weighs less than two ounces, but during the changes of pregnancy new material is added to it, until at the time of child birth it weighs from three to four pounds.

DURATION OF PREGNANCY.

This may be reckoned either from the last menstruation or from the time of connection. In the first case you should reckon forty weeks, or ten lunar months, from the close of the last menstrual

period. If you compute from the time of connection, then add thirty-nine weeks, or nine calendar months. A very convenient method is to fix the date of the last menstrual period, and add to it nine months and seven days. This reckoning, in the majority of cases, will not vary more than three or four days from the time of confinement.

While two hundred and eighty days is the usual duration of pregnancy, yet this period is liable to considerable variation. We have already seen that children may live who are born at the end of seven months. On the other hand, a woman may go over her time two, and sometimes three or more weeks. Dr. Simpson records cases as occurring in his practice, in which the pregnancies reached three hundred and thirty-six, three hundred and thirty-two, three hundred and twenty-four, and three hundred and nineteen days; and Professor Meigs publishes one case which reached three hundred and twenty days; but, even if these statistics are correct, such instances are too rare to render their occurrence in any given case probable. The "Code Napoleon" allows a child to be considered legitimate which is born one hundred and eighty days after marriage, or within three hundred days after the death of the husband.

IMMUNITY FROM DISEASE.

A woman while pregnant is almost entirely exempt from all acute diseases. She may be exposed to fever, cholera, and even such contagious diseases as small-pox or measles, yet she will rarely contract them. The system seems to be in such a state of physical activity that it is proof against their poisonous assaults. In some cases, even slight tubercular deposits upon the lungs have been cured by pregnancy. It is, however, an unsafe remedy; for, should the recovery not be complete, the woman will suffer more from the depressing influence of childbirth than she has gained by pregnancy. In the exceptional instances that acute diseases do occur during pregnancy, they are unusually severe.

HYGIENE OF PREGNANCY.

It is desirable during the period of pregnancy that the woman should have the benefit of the most favorable hygienic influences; for her health and safety are greatly influenced by the care she takes of herself at this time. Besides, it is now generally conceded that the health, mind, and disposition of the child depend in no small degree upon the condition of the mother during pregnancy.

PURE AIR.

No person can enjoy perfect health and breathe a vitiated atmosphere; but especially is it important that the pregnant woman should have an abundance of pure air. The demands of the system are large, and she is consequently more than usually susceptible to injurious influences. If the circumstances and strength permit, much time should be spent in the open air; when this is impracticable, the room should be well ventilated, and several times each day the doors and windows should be thrown open, that the air of the room may be completely changed. Care should of course be taken during the change not to allow the body to get chilled so as to take cold.

EXERCISE.

The kind and amount of exercise must depend very much upon the woman's strength, and her liability to a miscarriage. If she has suffered from former miscarriages she should be kept very quiet, especially during that part of her pregnancy corresponding to the time of her former miscarriage. Such violent exercise as dancing, horse-back riding, climbing, and heavy lifting should be avoided; but

walking, riding in an easy carriage, housework, and the other usual avocations of ladies, may be engaged in with caution, the same as at other times.

GOING INTO SOCIETY.

We cannot too strongly protest against the somewhat common practice of a woman shutting herself up in a room and avoiding society during her pregnancy. A woman should no more be ashamed of being pregnant than she should be ashamed of the beautiful babe which she nurses at her bosom ; and any man who will look with leering eyes at a pregnant woman, or make insinuating remarks about her, is a disgrace to the mother who bore him.

Yet many women dread pregnancy more because of the seclusion it forces upon them than from any other circumstance connected with it. Such a course is highly detrimental to health, and it is the duty of every husband to discourage this false modesty ; for at no time in her life does a woman so much need the cheerful influence and encouragement of society.

CLOTHING.

The most important point in regard to clothing is that the body should be dressed loosely. A very

foolish and dangerous practice often exists among young wives of lacing their body for the purpose of concealing their condition. Many instances of severe sickness, and often death, are produced in this way. The first case we ever lost in our medical practice was that of a woman four months and a half pregnant, with puerperal convulsions, produced by tight lacing. She had been married but a few months, and, like many others, was trying to conceal her condition from her friends, when, without a moment's warning, she was seized with convulsions, and died in fourteen hours. The result of imprudence in dress was in this case unusually severe, but in all instances the danger is greater than a woman can afford to risk.

DIET.

No special change needs to be made in the diet during pregnancy, except that it should be composed of plain, nourishing, and wholesome food. When there is much derangement of the stomach, those articles should be selected which experience proves to agree the best.

There is often, as we have already seen, a decided change in the appetite. So far as these new desires are for food that is wholesome, they may be grati-

fied ; but when there is a craving for chalk, slate-stones, and other similar substances, it indicates a depraved appetite which should not be indulged.

GRATIFICATION OF DESIRES.

A curious superstition often exists that if a pregnant woman is denied the gratification of any desire, her child will be marked with a resemblance of the forbidden object. A careful investigation of this subject proves that this superstition has little or no foundation in fact. Dr. William Hunter, of London, in an experience of two thousand cases of labor, always asked the mother as soon as the child was born if she had been disappointed in any desire, and in not a single instance was there any mark corresponding to the expectations of the mother.

While facts like these should set the mind of the pregnant woman at rest, yet we would advise that her caprices be always treated with respect, and, when reasonable, gratified. They are for the most part involuntary, and if not gratified, it often throws the woman into a state of anxiety and agitation, which is detrimental both to her own health and that of her unborn babe.

MOTHER'S MARKS, DEFORMITIES, ETC.

It is yet a disputed question whether mother's marks and deformities are ever produced by impressions made upon the mother's mind during pregnancy. Some deformities, like hair-lip, supernumerary fingers and toes, etc., are sometimes hereditary in certain families; but in other instances we can discover no traces of hereditary descent. In the great majority of cases no explanation can be offered for the deformity; but in an occasional instance there is such a correspondence between the mark of the child and a powerful mental impression of the mother, that it leaves no reasonable doubt of the relation of cause and effect.

The husband should, therefore, as far as possible, prevent his wife when pregnant from encountering deformed people, and frightful or repulsive sights of every kind. If anything does occur which makes a strong impression upon her, she should be encouraged not to brood over it, but to cast it from her mind as soon as possible; for the chances of its affecting her are probably greatly enhanced by her own expectation of evil results.

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RELATION OF HUSBAND AND WIFE.

When a woman has formerly suffered from miscarriage, the husband should abstain from sexual intercourse until after the period when the miscarriage is likely to occur. In other instances there is no objection to the usual relations being maintained between husband and wife. It should, however, be remembered that excessive sexual intercourse is very liable to produce miscarriage, especially during the first few months of pregnancy.

REST AFTER CHILDBIRTH.

No part of a woman's life is more important in its influence upon her future health than the first few weeks following childbirth. More women are rendered invalids for life by ignorant mismanagement at this time than from all other causes connected with pregnancy. The reasons of this we will briefly explain, in order that husbands as well as wives may know the penalty of imprudence.

As soon as the child is born the womb contracts into a hard lump weighing four or five pounds. The ligaments which naturally hold the womb in position have during pregnancy been stretched far beyond their natural limit ; while the vagina and external

parts have been greatly distended by the birth of the child. If at this time a woman gets upon her feet, there is nothing to prevent the womb from dropping down into the vagina, and even sometimes from dropping out of the body. After confinement the womb gradually wastes away, and the ligaments regain their strength, so that in the course of six weeks the parts have all returned to their natural condition.

You see, therefore, the importance of absolute rest during the first few days after childbirth, and of great care during the whole of the time that the organs are returning to their normal condition. If a woman is removed from one bed to another, or if changes are made upon the bed where she lies, they should be done without the least exertion on her part, and without her leaving the horizontal position. So, also, in evacuating the rectum and bladder a bed-pan should in all cases be used.

Many women have a pride in seeing how quickly they can get around after confinement; and many husbands, we are sorry to say, encourage their wives in this feeling; so the third day they put their feet upon the floor, the ninth day they take a few steps, and in two weeks they resume their usual work. The result of this course is to quickly make them confirmed invalids. How many times women have

come to us complaining of back-ache, leucorrhœa, "bearing down" sensations, and the other usual symptoms of uterine disease; and we inquire, "When did this trouble begin?" They reply, from the birth of such a child. "Did you get around sooner than usual?" "Oh, yes; I felt real smart, and could not bear to stay in bed;" or, "My husband wanted me to get up, just to see if I could take a few steps;" or, "My nurse left me, and I had no one to do my work, so I got up and tried to do what I could." We have heard these statements from patients so frequently that we feel that we cannot speak too forcibly upon this point. Remember the motto, "Make haste slowly." Wait patiently four or five weeks, until nature has restored the natural condition of the uterine organs, and then the mother may get up and go about her work with health improved rather than impaired by the exercise of the functions of reproduction.

INHERITANCE.

It is a well-known fact that the characteristics of the parents are transmitted to their children. Not only do children inherit their form, looks, and expression, but also to a great extent their mental and moral natures. It is often said that the future

of a child depends upon his bringing up ; but this is many times far from true. How often do we see children brought up side by side, with the same care and advantages, and yet when they are grown to manhood they are as different as light from darkness. There is an essential difference in the mental and physical natures of the two, and that difference dates back to the earliest period of their existence ; yes, even to their parents, from whose bodies the germ of their life was furnished.

Not only are the mental and physical qualities of the parents transmitted to their children, but, also, many forms of disease. This is especially true of scrofula, consumption, syphilis, rheumatism, gout, idiocy, and insanity. Scrofulous parents almost invariably give birth to scrofulous children ; and statistics show that of those who die of consumption, almost three-fourths have lost relatives from the same disease. Syphilis, as we have already seen, is strongly hereditary. The statistics of our insane asylums show insanity to be hereditary in the families of nearly three-fourths of the cases ; and in the few instances where idiots have given birth to children their offspring have invariably been idiotic.

The health of the parents at the time of concep-

tion determines in no small degree the vigor and constitution of the child. It is therefore not desirable that impregnation should take place when either of the parents is recovering from sickness, or is in poor health.

It is also worth while to observe that the child receives more of its characteristics from its mother than from its father. The reason of this is that with the occurrence of conception the father's influence ceases; while the mother's continues during the whole of intra-uterine life. The features, form, and complexion of the child are taken equally from both parents; but the health, constitution, and perhaps also the mind of the child are derived more from the mother than the father. Men who have risen to eminence in life, nearly always owe their distinction to a noble and intelligent mother.

It is thought by some that the daughters are most likely to take after the father, and the sons after the mother; but there are so many exceptions to this rule as to render it of but little value.

The state of the mother's mind during pregnancy has, without doubt, much to do in fashioning the looks, disposition, and intelligence of her offspring. Not that she has the power to make it

anything she wishes, but the prevailing state of her mind will leave its impress upon the child. If she is cheerful and happy, and her mind is occupied with noble thoughts and aspirations, the chances are that her child will inherit the same qualities ; but if she is cross and peevish, her spirits depressed, and her mind absorbed by gloomy forebodings of the future, she will entail more or less of her unhappy temper and disposition upon her offspring.

It therefore becomes the husband at such times to be especially kind and considerate to his wife, and to strive in every way to make her time pass pleasantly and cheerfully. What if she is more than usually fretful and exacting? Remember it is upon woman, the weaker vessel, that the chief burden of reproduction is laid. It therefore little becomes us, who are relieved from this load, to be cold and exacting toward those who in the discharge of their duty endure with loving patience a multitude of ills which we know not of.

Even the personal appearance of the child may be influenced by the ideal of its mother. If her mind dwells on pictures and faces which are beautiful, her child will partake of some of the same qualities of beauty. It may be that the admiration

of the wife for the husband gives the child a stronger resemblance to the father than it would possess from inheritance alone.

The facts which we have mentioned should impress upon fathers and mothers the grave responsibilities which they assume. The qualities which the child inherits are not a matter of mere accident, but largely depend upon the voluntary choice of the parents. If they take pains to preserve and improve their own health, to cultivate their mind, to curb their passions, and to control and discipline their temper, the reward of this pains and self-sacrifice will bless not only themselves but their children. If, on the other hand, the parents give unbridled rein to their lusts and appetites, and bring upon themselves physical and moral ruin, the curse of their transgressions will descend upon their offspring.

The time is speedily coming when physical health is to assume a more important rank among the blessings of this life; when our children will honor and revere us, not so much in proportion to the wealth we amass for them, as to the pains we take to give them sound physical health, and to store their minds and hearts with valuable thoughts and noble aspirations. What grander inheritance than this can any parent leave his child !

Without it, what value is there in wealth, education, or worldly honor?

If the perusal of these pages shall materially assist the reader in securing these blessings the object of the authors will be fully accomplished.

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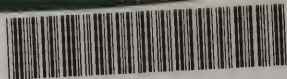
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